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# *Indiana Public Retirement System*

Public Employees' Retirement Fund

Actuarial Valuation as of  
June 30, 2015



October 29, 2015

Board of Trustees  
Indiana Public Retirement System  
1 North Capitol, Suite 001  
Indianapolis, IN 46204

**Re: Certification of the Actuarial Valuations of the Indiana Public Retirement System as of June 30, 2015**

Dear Board of Trustees:

Actuarial valuations are performed annually for the Indiana Public Retirement System ("INPRS") defined benefit pension plans ("Plans"). The results of the June 30, 2015 actuarial valuations for all plans other than the Teachers' Retirement Fund are presented in individual valuation reports pursuant to the engagement letter between INPRS and PricewaterhouseCoopers LLP ("PwC"), originally executed on June 7, 2010, as amended through the date of this report. The reports are intended to provide the Board of Trustees ("Board") with information on the funded status of the Plans, development of the contribution rates, and certain financial statement disclosure information.

Under Indiana statutes, employer contribution rates and amounts, as applicable, are adopted annually for each Plan by the Board. The contributions are actuarially determined based on the funding policy, actuarial assumptions, and actuarial methods adopted by the Board. Contributions determined by the actuarial valuation become effective either twelve or eighteen months after the valuation date, depending on the applicable employer. Therefore, contribution rates and amounts determined by the June 30, 2015 actuarial valuation and adopted by the Board will become effective on either July 1, 2016 or January 1, 2017. If new legislation is enacted between the valuation date and the date the contributions become effective, the Board may adjust the recommended contributions before adopting them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

**Financing Objectives and Funding Policy**

In setting contribution levels, the Board's principal objectives have been:

- To set contributions such that the unfunded actuarial accrued liability ("UAAL") will be amortized over a period not greater than 30 years.
- To set contributions such that they remain relatively level over time.

To accomplish this, the Board's funding policy requires that employer contributions be equal to the sum of the employer normal cost (which pays the current year cost of benefits accruing) and an amortization of the UAAL in equal installments.

**Progress Toward Realization of Financing Objectives**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements it should increase over time, until it reaches 100% if contributions equal or exceed the actuarially determined amount. The combined funded ratio for all Plans (excluding the Teachers' Retirement Fund) decreased by 2.7% from the preceding year to 84.3%, primarily due to changes in the actuarial assumptions pursuant to the experience study completed in April 2015, investment returns being less than the 6.75% assumed, and other adverse member experience.

**Benefit Provisions**

The benefit provisions reflected in the valuation reports are those which were in effect at June 30, 2015, as set forth in the related Indiana statutes. There were no material changes in benefit provisions since the 2014 valuations.

**Assets and Member Data**

The valuations were based on asset values of the trust funds as of June 30, 2015 and member census data as of June 30, 2014, adjusted for certain activity during fiscal year 2015. All asset information and member data were provided by INPRS. While certain checks for reasonableness were performed, the data was used unaudited. The accuracy of the results presented in the reports is dependent upon the accuracy and completeness of the underlying asset and census information.



### **Actuarial Assumptions and Methods**

The actuarial assumptions used in the June 30, 2015 valuations were adopted by the Board pursuant to the experience studies completed in April 2015, which reflected the experience period from July 1, 2010 through June 30, 2014. The June 30, 2015 valuations incorporate member census data as of June 30, 2014, adjusted for certain activity during fiscal year 2015. Standard actuarial techniques were used to roll forward valuation results over one year.

The actuarial assumptions and methods are summarized in the Actuarial Assumptions and Methods section of each valuation report. We believe the actuarial assumptions and methods are reasonable for the purposes of the valuation reports and comply with the parameters set forth in Statements No. 67 and No. 68 of the Governmental Accounting Standards Board ("GASB"). Different assumptions and methods may be reasonable for other purposes. As such, the results presented in the valuation reports should only be relied upon for the intended purpose.

### **Certification**

We certify that the information presented herein is accurate and fairly portrays the actuarial position of each Plan administered by INPRS (other than the Teachers' Retirement Fund) as of June 30, 2015, based on the underlying census data, asset information and selected assumptions and methods. This information is presented in several schedules and exhibits in this report, including the following:

#### Financial Section:

- Note 1 - Tables of Plan Membership (Included in the Historical Summary)
- Note 8 - Net Pension Liability and Actuarial Information - Defined Benefit Plans (Included in the Accounting Section)
- Schedule of Changes in Net Pension Liability and Plan Fiduciary Net Position
- Schedule of Contributions (Actuarially Determined Contribution)
- Schedule of Notes to Required Supplementary Information

#### Actuarial Section:

- Summary of INPRS Funded Status (Included in the Historical Summary)
- Historical Summary of Actuarial Valuation Results by Retirement Plan (Schedule of Funding Progress Included in the Historical Summary)
- Summary of Actuarial Assumptions, Methods and Plan Provisions
- Analysis of Financial Experience (Included in the Unfunded Actuarial Accrued Liability Reconciliation)
- Solvency Test (Included in the Historical Summary)
- Schedule of Active Member Valuation Data
- Schedule of Retirants and Beneficiaries

#### Statistical Section:

- Membership Data Summary (Included in the Historical Summary)
- Ratio of Active Members to Annuitants (Census Counts Included in the Historical Summary)
- Schedule of Benefit Recipients by Type of Benefit Option
- Schedule of Average Benefit Payments

This report contains certain accounting information required to be included in the System's Comprehensive Annual Financial Report. This information for the system has been prepared in accordance with our understanding of GASB No.67. This report also contains employer accounting information prepared in accordance with our understanding of GASB No. 68.

To the best of our knowledge this actuarial statement is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with our understanding of the requirements of Indiana state law. The undersigned actuaries are members of the Society of Actuaries and other professional organizations, including the American Academy of Actuaries, and meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States relating to pension plans. There is no relationship between the PwC practitioners involved in this engagement and INPRS that may impair our objectivity.



This document has been prepared pursuant to an engagement letter between INPRS and PwC, and is intended solely for the use and benefits of INPRS and not for reliance by any other person.

Respectfully submitted,

A handwritten signature in black ink that reads "Cindy Fraterrigo".

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Ms. Cindy Fraterrigo  
Member, American Academy of Actuaries  
Fellow of the Society of Actuaries  
Enrolled Actuary (No. 14-06229)

A handwritten signature in black ink that reads "Brandon A. Robertson".

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Mr. Brandon Robertson  
Member, American Academy of Actuaries  
Associate of the Society of Actuaries  
Enrolled Actuary (No. 14-07568)

The content of this document is limited to the matters specifically addressed herein and does not address any other potential tax consequences, or the potential application of tax penalties, to any matter other than as set forth herein. Our conclusions are not binding upon any taxing authority or the courts and there is no assurance that any relevant taxing authority will not successfully assert a contrary position. In addition, no exceptions (including the reasonable cause exception) are available for any federal or state penalties imposed if any portion of a transaction is determined to lack economic substance or fails to satisfy any similar rule of law, and our advice will not protect you from any such penalties. This document supersedes all prior written or oral advice with respect to the issues addressed in this document and all such prior communications should not be relied upon by any person for any purpose.

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## SECTION I - EXECUTIVE SUMMARY

### **HIGHLIGHTS OF THE ACTUARY'S REPORT**

This report presents the results of the actuarial valuation of the Public Employees' Retirement Fund ("PERF") and has been prepared to present the current funded status of the Plan, contribution requirements for the 2017 fiscal year of the State (July 1, 2016 through June 30, 2017) and Political Subdivisions (January 1, 2017 through December 31, 2017), and certain financial statement disclosure information. The valuation was performed using census data for plan members as of June 30, 2014, adjusted for certain activity during fiscal year 2015, as provided by INPRS and summarized in Section IV, asset information as of June 30, 2015 provided by INPRS, the actuarial assumptions and methods approved by the Board and summarized in Section V, and the plan provisions effective June 30, 2015 summarized in Section VI.

#### **Contribution Rates**

The Board sets, at its discretion, the applicable employer contribution rates upon considering the results of the actuarial valuation and other analysis as appropriate.

The Actuarially Determined Contribution Rate for the State for the year beginning July 1, 2016 is 10.11%. However, the Board has approved an employer contribution rate for the State of 11.2%. The actual dollar amount of employer cost for the year beginning July 1, 2016 will depend on the actual payroll during year.

The aggregate Actuarially Determined Contribution Rate for the Political Subdivisions for the year beginning January 1, 2017 is 9.76%. However, the Board has approved a Composite Rate of 11.2%. Political Subdivisions paying a rate less than the Composite Rate in 2016 will be migrated toward the Composite Rate via an increase of (up to) 1.5% in contribution rate (not to exceed the composite rate of 11.2%) for 2017. The weighted average contribution rate for all Political Subdivisions is expected to be 11.2% in 2017. The actual dollar amount of employer cost will depend on the actual payroll during calendar year 2017.

Employees of the State and participating Political Subdivisions contribute 3% of their compensation to an Annuity Savings Account. Employers may "pick up" the employee contributions. The accumulated balance in each member's Annuity Savings Account can be withdrawn as a lump sum upon termination or can be converted to an annuity that is paid monthly in addition to the benefit that is funded by the employer contributions upon retirement.

#### **Funded Status**

The funded status of PERF is measured by the funded ratio, which is the ratio of the assets available for benefits to a benefit liability measure for PERF. While there are several such measures that could be appropriately used, the benefit liability measure that ties most closely to INPRS's funding strategy is the Actuarial Accrued Liability ("AAL").

Using the Actuarial Value of Assets ("AVA"), an asset value that smoothes the market gains and losses over four (4) years, the PERF AAL funded ratio decreased from 82.4% at June 30, 2014 to 78.6% at June 30, 2015. The decrease is due to changes in the actuarial assumptions pursuant to the experience study completed in April 2015, investment returns being less than the 6.75% assumed, and other adverse member experience.

#### **Investment Experience**

For the fiscal year ending June 30, 2015, the INPRS actual time-weighted return net of fees was 0.0%. Based on the value of assets allocated to PERF, including member ASA balances, as of the prior valuation date and contribution and benefit payment activity during the year, the allocation of returns to PERF represent a return of approximately 0.1% on market value and 4.1% on actuarial value. The return on actuarial value is different due to the smoothing of returns greater or less than expected returns over four years.

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## SECTION I - EXECUTIVE SUMMARY

### **HIGHLIGHTS OF THE ACTUARY'S REPORT (CONTINUED)**

#### **Cost-of-Living Adjustment**

Cost-of-living increases for retired members have historically been granted on an "ad hoc" basis. INPRS has confirmed that no increase in monthly benefits will be provided to retired members, disabled members, or beneficiaries as of January 1, 2016. Instead, a "13th check" is required to be paid to each member (or survivor or beneficiary) in pay status no later than October 1, 2015. The amount of the 13th check varied based on the years of creditable service the member had earned prior to retirement.

#### **Changes in Actuarial Assumptions**

An assumption study was performed in April of 2015 resulting in an update to several assumptions. Details are described below.

The **inflation assumption** changed from 3.0% to 2.25% per annum.

The **future salary increase assumption** changed from an age-based table ranging from 3.25% to 4.5% to an age-based table ranging from 2.50% to 4.25%.

The **mortality assumption** changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) Total Data Set Mortality Tables projected on a fully generational basis using the future mortality improvement scale inherent in the mortality projection included in the Social Security Administration's 2014 Trustee Report.

The **retirement assumption** was updated based on recent experience. Additionally, for actives who are eligible for early retirement (reduced benefit), 33% are assumed to commence benefits immediately and 67% are assumed to commence benefits at unreduced retirement eligibility. If eligible for an unreduced retirement benefit upon termination from employment, 100% commence immediately.

The **termination assumption** was updated based on recent experience. For members earning less than \$20,000, the tables were updated from a select and ultimate table to just an ultimate table as there is little correlation with service. For members earning more than \$20,000, the tables were updated from using a 5-year select period to a 10-year select period to correspond with the vesting schedule.

The **disability assumption** was updated based on recent experience.

The **ASA Annuitization** assumption was updated from 50% of members assumed to annuitize their ASA balance to 60% of members assumed to annuitize their ASA balance prior the January 1, 2017.

#### **Changes in Plan Provisions**

It is our understanding that there were no changes to the Plan that impacted pension benefits during the previous fiscal year.

#### **Changes in Actuarial Methods**

There were no method changes for the June 30, 2015 valuation.

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SECTION I - EXECUTIVE SUMMARY

**HIGHLIGHTS OF THE ACTUARY'S REPORT (CONTINUED)**

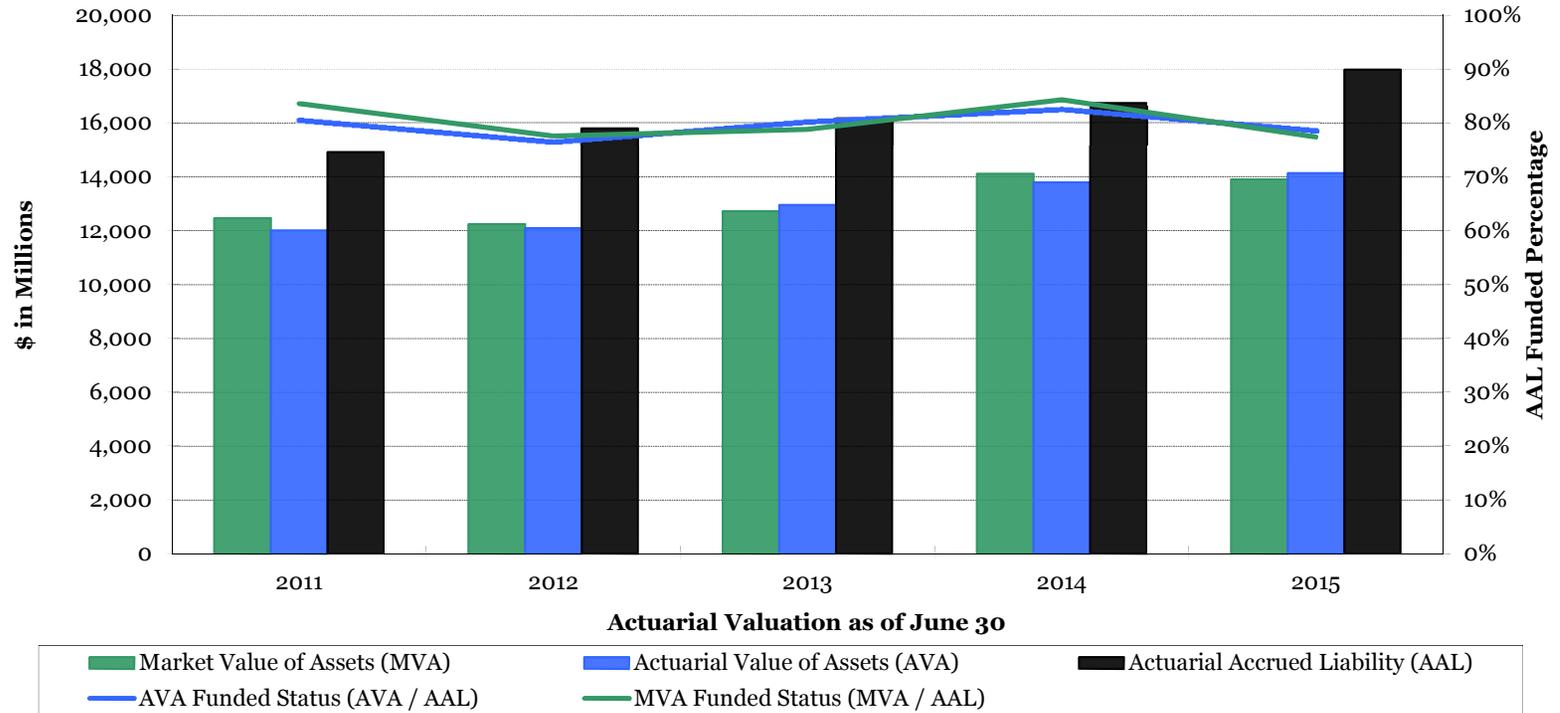
**Governmental Accounting Standards**

This report contains certain financial statement information, including notes and required supplemental information, prepared in accordance with our understanding of Governmental Accounting Standards No. 67 and No. 68 ("GASB 67" and "GASB 68") to assist INPRS with the implementation of the new standards. GASB 67 is effective for public pension plans for fiscal years beginning after June 15, 2013. GASB 68 is effective for employers sponsoring and/or participating in public pension plans for fiscal years beginning after June 15, 2014.

SECTION I - EXECUTIVE SUMMARY

HISTORICAL SUMMARY

**Total PERF – 5 Year History of Funded Status**

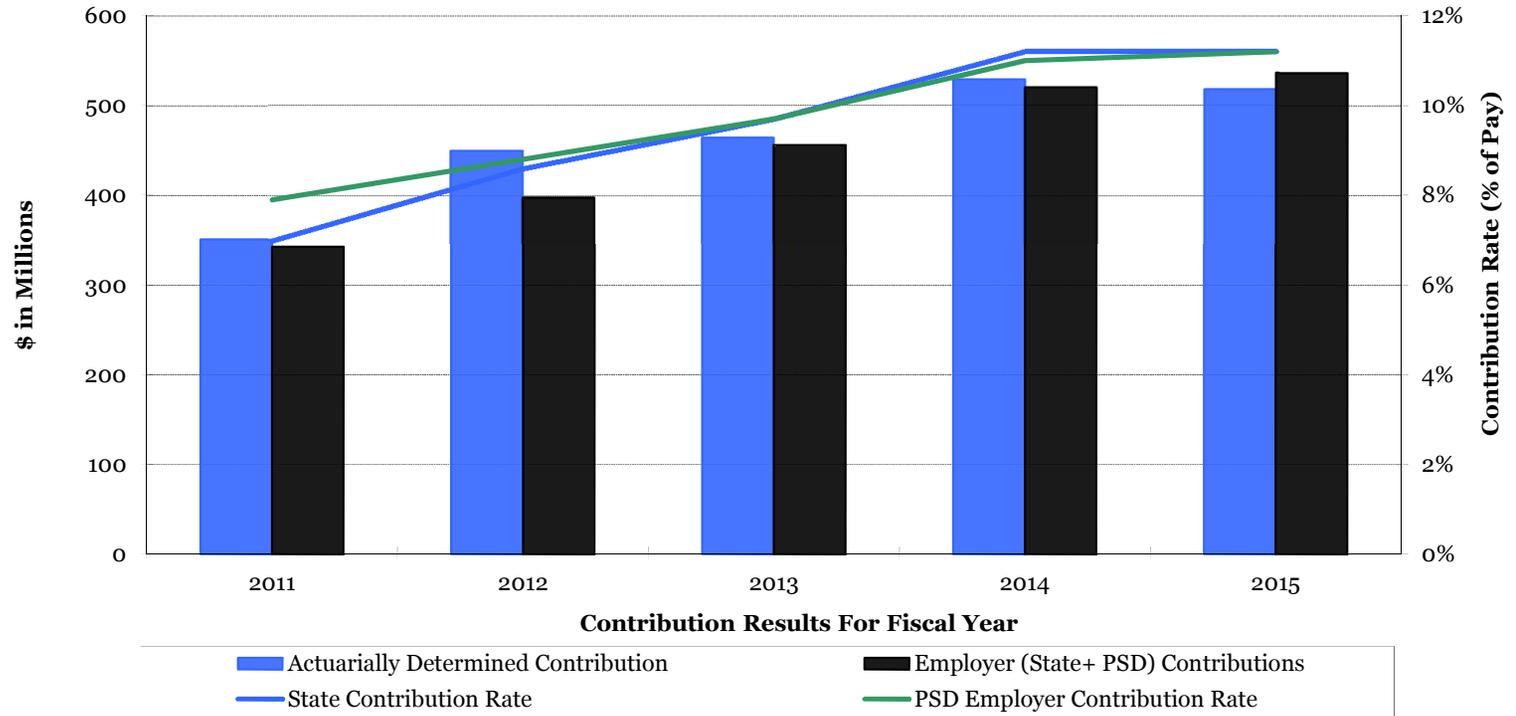


<b>Actuarial Valuation as of June 30:</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Actuarial Accrued Liability (AAL)	\$14,913.1	\$15,784.2	\$16,145.7	\$16,732.2	\$17,980.6
Actuarial Value of Assets (AVA)	12,000.6	12,088.2	12,947.3	13,791.3	14,131.9
Market Value of Assets (MVA)	12,461.4	12,243.8	12,720.6	14,104.3	13,907.7
Unfunded Liability (AAL - AVA)	2,912.5	3,696.0	3,198.4	2,940.9	3,848.7
AVA Funded Status (AVA / AAL)	80.5%	76.6%	80.2%	82.4%	78.6%
MVA Funded Status (MVA / AAL)	83.6%	77.6%	78.8%	84.3%	77.3%

**SECTION I - EXECUTIVE SUMMARY**

**HISTORICAL SUMMARY (CONTINUED)**

**Total PERF – 5 Year History of Contributions**



<b>Contribution Results For Fiscal Year:</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Actuarially Determined Contribution <sup>1</sup>	\$351.0	\$449.4	\$464.0	\$528.6	\$517.7
Employer (State+ PSD) Contributions	\$342.8	\$397.8	\$455.7	\$519.6	\$536.2
ADC % Contributed	97.7%	88.5%	98.2%	98.3%	103.6%
State Contribution Rate <sup>2</sup>	7.0%	8.6%	9.7%	11.2%	11.2%
PSD Employer Contribution Rate <sup>2</sup>	7.9%	8.8%	9.7%	11.0%	11.2%
Member Contribution Rate	3.0%	3.0%	3.0%	3.0%	3.0%

<sup>1</sup> The ADC amount is based on the ADC Rates in effect during the fiscal year, multiplied by actual payroll for the fiscal year.

<sup>2</sup> Rates shown are those in effect on July 1 during the fiscal year for the State and January 1 during the fiscal year for the political subdivisions. Contribution dollar amounts are for the fiscal year.

SECTION I - EXECUTIVE SUMMARY

**HISTORICAL SUMMARY (CONTINUED)**

**Total PERF – Summary of Valuation Results**<sup>1</sup>

<b><u>Valuation Date</u></b>	<b><u>June 30, 2011</u></b>	<b><u>June 30, 2012</u></b>	<b><u>June 30, 2013</u></b>	<b><u>June 30, 2014</u></b>	<b><u>June 30, 2015</u></b>
Development of Actuarially Determined Contribution Rate:					
1. Anticipated Payroll	\$ 4,818,773,680	\$ 4,904,052,414	\$ 4,766,909,874	\$ 5,080,092,296	\$ 4,964,813,388
2. Normal Cost (Beginning of Year)					
a. Amount	\$ 253,006,701	\$ 270,973,983	\$ 258,069,653	\$ 273,909,865	\$ 191,055,506
b. Percentage of Payroll	5.25%	5.53%	5.41%	5.39%	3.85%
3. Unfunded Actuarial Accrued Liability Annual Amortizations					
a. Amount	\$ 222,668,943	\$ 278,065,556	\$ 244,924,393	\$ 229,329,868	\$ 299,549,285
b. Percentage of Payroll	4.62%	5.67%	5.14%	4.51%	6.03%
4. Actuarially Determined Contribution Rate: (2)(b) + (3)(b)	<b>9.87%</b>	<b>11.20%</b>	<b>10.55%</b>	<b>9.90%</b>	<b>9.88%</b>
<b><u>Fiscal / Calendar Year</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>
Approved Funding Rate <sup>2</sup>	<b>9.72%</b>	<b>11.08%</b>	<b>11.19%</b>	<b>11.20%</b>	<b>11.20%</b>

<sup>1</sup> The contribution rates shown were developed on a funding basis only and do not reflect accounting requirements.

<sup>2</sup> The Approved Funding Rate shown is the aggregate rate for the State and Political Subdivisions. The funding rates determined by the June 30, 2015 valuation become effective July 1, 2016 for the State and January 1, 2017 for the Political Subdivisions.

SECTION I - EXECUTIVE SUMMARY

**HISTORICAL SUMMARY (CONTINUED)**

**State – Summary of Valuation Results <sup>1</sup>**

<b><u>Valuation Date</u></b>	<b><u>June 30, 2011</u></b>	<b><u>June 30, 2012</u></b>	<b><u>June 30, 2013</u></b>	<b><u>June 30, 2014</u></b>	<b><u>June 30, 2015</u></b>
Development of Actuarially Determined Contribution Rate:					
1. Anticipated Payroll	\$ 1,641,685,770	\$ 1,648,023,022	\$ 1,647,453,669	\$ 1,758,268,220	\$ 1,698,936,078
2. Normal Cost (Beginning of Year)					
a. Amount	\$ 73,614,164	\$ 78,888,474	\$ 76,718,697	\$ 81,560,106	\$ 57,464,009
b. Percentage of Payroll	4.49%	4.79%	4.65%	4.64%	3.38%
3. Unfunded Actuarial Accrued Liability Annual Amortizations					
a. Amount	\$ 84,263,994	\$ 105,132,459	\$ 97,160,297	\$ 90,674,549	\$ 114,273,153
b. Percentage of Payroll	5.13%	6.38%	5.90%	5.16%	6.73%
4. Actuarially Determined Contribution Rate:					
a. Percentage of Payroll: (2)(b) + (3)(b)	<b>9.62%</b>	<b>11.17%</b>	<b>10.55%</b>	<b>9.80%</b>	<b>10.11%</b>
b. Effective Date	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015	July 1, 2016
<b><u>Fiscal Year</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>
Approved Funding Rate <sup>2</sup>	<b>9.70%</b>	<b>11.20%</b>	<b>11.20%</b>	<b>11.20%</b>	<b>11.20%</b>

**Political Subdivisions – Summary of Valuation Results <sup>1</sup>**

<b><u>Valuation Date</u></b>	<b><u>June 30, 2011</u></b>	<b><u>June 30, 2012</u></b>	<b><u>June 30, 2013</u></b>	<b><u>June 30, 2014</u></b>	<b><u>June 30, 2015</u></b>
Development of the Aggregate Actuarially Determined Contribution Rate:					
1. Anticipated Payroll	\$ 3,177,087,910	\$ 3,256,029,392	\$ 3,119,456,205	\$ 3,321,824,076	\$ 3,265,877,310
2. Normal Cost (Beginning of Year)					
a. Amount	\$ 179,392,537	\$ 192,085,509	\$ 181,350,956	\$ 192,349,759	\$ 133,591,497
b. Percentage of Payroll	5.64%	5.90%	5.81%	5.79%	4.09%
3. Unfunded Actuarial Accrued Liability Annual Amortizations					
a. Amount	\$ 138,404,949	\$ 172,933,097	\$ 147,764,096	\$ 138,655,319	\$ 185,276,132
b. Percentage of Payroll	4.36%	5.31%	4.74%	4.17%	5.67%
4. Aggregate Actuarially Determined Contribution Rate:					
a. Percentage of Payroll: (2)(b) + (3)(b)	<b>10.00%</b>	<b>11.21%</b>	<b>10.55%</b>	<b>9.96%</b>	<b>9.76%</b>
b. Effective Date	January 1, 2013	January 1, 2014	January 1, 2015	January 1, 2016	January 1, 2017
<b><u>Calendar Year</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>
Approved Funding Rate <sup>2,3</sup>	<b>9.73%</b>	<b>11.03%</b>	<b>11.19%</b>	<b>11.20%</b>	<b>11.20%</b>

<sup>1</sup> The contribution rates shown were developed on a funding basis only and do not reflect accounting requirements.

<sup>2</sup> The funding rates determined by the June 30, 2015 valuation become effective July 1, 2016 for the State and January 1, 2017 for the Political Subdivisions. Approved Funding Rates before June 30, 2011 were based on smoothing rules that were repealed by the Board in December 2011.

<sup>3</sup> The Approved Funding Rate shown is the aggregate rate for Political Subdivisions.

SECTION I - EXECUTIVE SUMMARY

**HISTORICAL SUMMARY (CONTINUED)**

**Total PERF – Summary of Valuation Results (Continued)**<sup>1, 2</sup>

	<u>June 30, 2011</u>	<u>June 30, 2012</u>	<u>June 30, 2013</u>	<u>June 30, 2014</u>	<u>June 30, 2015</u>
Census Information					
Active <sup>3</sup>					
Number					
State	45,912	45,156	42,742	42,770	41,313
Political Subdivisions	102,021	100,363	95,125	94,727	96,976
ASA Only	N/A	N/A	70	70	371
Total	<u>147,933</u>	<u>145,519</u>	<u>137,937</u>	<u>137,567</u>	<u>138,660</u>
Average Age	47.6	47.6	47.8	47.8	47.7
Average Years of Service	11.4	11.5	11.6	11.6	11.5
Anticipated Payroll of Actives <sup>4</sup>					
State	1,641,685,770	1,648,023,022	1,647,453,669	1,758,268,220	1,698,936,078
Political Subdivisions	<u>3,177,087,910</u>	<u>3,256,029,392</u>	<u>3,119,456,205</u>	<u>3,321,824,076</u>	<u>3,265,877,310</u>
Total	\$ <u>4,818,773,680</u>	\$ <u>4,904,052,414</u>	\$ <u>4,766,909,874</u>	\$ <u>5,080,092,296</u>	\$ <u>4,964,813,388</u>
Inactive - Vested					
Number	20,933	21,423	23,496	24,013	26,681
Average Age	52.7	52.7	53.1	53.0	53.6
Average Years of Service	11.8	11.9	12.0	11.9	12.1
Inactive - Non-Vested					
Number	71,806	51,065	50,997	50,997	43,803
Retiree/Beneficiary/Disabled					
Number	70,380	72,992	75,950	75,950	79,198
Average Age	72.5	72.5	72.5	72.5	72.6
Annual Benefits Payable <sup>5</sup>					
Pension	455,230,274	483,551,145	515,868,841	515,868,841	551,559,148
ASA Annuities	<u>84,516,826</u>	<u>93,126,384</u>	<u>102,108,467</u>	<u>102,108,467</u>	<u>112,208,080</u>
Total	\$ <u>539,747,100</u>	\$ <u>576,677,529</u>	\$ <u>617,977,308</u>	\$ <u>617,977,308</u>	\$ <u>663,767,228</u>

<sup>1</sup> The valuation results beginning as of June 30, 2014 were calculated using census data as of the prior year end, adjusted for certain activity during the current fiscal year.

<sup>2</sup> Head counts reflects the record counts used in the valuation, which may include duplicate records for members such as members with multiple periods of service.

<sup>3</sup> Does not include statistics on the 136 active members who joined after June 30, 2014.

<sup>4</sup> Figures shown are the anticipated pay for the one-year period following the valuation date.

<sup>5</sup> Figures shown reflect cost-of-living increases effective January 1 following the date of the census data, if provided, but do not reflect one-time 13th check amounts provided or new ASA annuitizations after the date of the census data.

**SECTION I - EXECUTIVE SUMMARY**

**HISTORICAL SUMMARY (CONTINUED)**

**Total PERF – Summary of Valuation Results (Continued)**

	<u>June 30, 2011</u>	<u>June 30, 2012</u>	<u>June 30, 2013</u>	<u>June 30, 2014</u>	<u>June 30, 2015</u>
<b>Actuarial Accrued Liability (AAL)</b>					
ASA Account Balance	\$ 2,805,023,137	\$ 2,749,448,762	\$ 2,796,102,616	\$ 2,851,500,608	\$ 2,717,173,311
ASA Annuities - Retiree/Beneficiary/Disabled	801,369,029	908,664,881	1,005,166,415	1,090,399,829	1,303,756,949
Pension - Retiree/Beneficiary/Disabled	4,569,417,231	4,987,114,328	5,362,652,879	5,160,501,824	5,677,550,747
Pension - Active and Inactive					
State	2,538,861,413	2,660,671,538	2,635,640,409	2,855,695,328	3,058,855,272
Political Subdivisions	4,198,476,483	4,478,340,402	4,346,118,470	4,774,125,060	5,223,231,984
Total	<u>\$ 6,737,337,896</u>	<u>\$ 7,139,011,940</u>	<u>\$ 6,981,758,879</u>	<u>\$ 7,629,820,388</u>	<u>\$ 8,282,087,256</u>
Total	\$ 14,913,147,293	\$ 15,784,239,911	\$ 16,145,680,789	\$ 16,732,222,649	\$ 17,980,568,263
<b>Actuarial Value of Assets (AVA)</b>					
ASA Account Balance	\$ 2,805,023,137	\$ 2,749,448,762	\$ 2,796,102,616	\$ 2,851,500,608	\$ 2,717,173,311
ASA Annuities - Retiree/Beneficiary/Disabled	801,369,029	908,664,881	1,005,166,415	1,090,399,829	1,303,756,949
Pension - Retiree/Beneficiary/Disabled	4,569,417,231	4,987,114,328	5,362,652,879	5,160,501,824	5,677,550,747
Pension - Active and Inactive	3,824,776,913	3,442,996,687	3,783,361,323	4,688,858,694	4,433,402,602
Total	<u>\$ 12,000,586,310</u>	<u>\$ 12,088,224,658</u>	<u>\$ 12,947,283,233</u>	<u>\$ 13,791,260,955</u>	<u>\$ 14,131,883,609</u>
<b>Market Value of Assets (MVA)</b>					
ASA Account Balance	\$ 2,805,023,137	\$ 2,749,448,762	\$ 2,796,102,616	\$ 2,851,500,608	\$ 2,717,173,311
ASA Annuities - Retiree/Beneficiary/Disabled	801,369,029	908,664,881	1,005,166,415	1,090,399,829	1,303,756,949
Pension - Retiree/Beneficiary/Disabled	4,569,417,231	4,987,114,328	5,362,652,879	5,160,501,824	5,677,550,747
Pension - Active and Inactive	4,285,546,512	3,598,525,143	3,556,679,808	5,001,885,293	4,209,185,206
Total	<u>\$ 12,461,355,909</u>	<u>\$ 12,243,753,114</u>	<u>\$ 12,720,601,718</u>	<u>\$ 14,104,287,554</u>	<u>\$ 13,907,666,213</u>
<b>Unfunded Actuarial Accrued Liability: AAL - AVA</b>					
ASA Account Balance	\$ -	\$ -	\$ -	\$ -	\$ -
ASA Annuities - Retiree/Beneficiary/Disabled	-	-	-	-	-
Pension - Retiree/Beneficiary/Disabled	-	-	-	-	-
Pension - Active and Inactive	2,912,560,983	3,696,015,253	3,198,397,556	2,940,961,694	3,848,684,654
Total	<u>\$ 2,912,560,983</u>	<u>\$ 3,696,015,253</u>	<u>\$ 3,198,397,556</u>	<u>\$ 2,940,961,694</u>	<u>\$ 3,848,684,654</u>
<b>Funded Percentage: AVA / AAL <sup>1</sup></b>					
ASA Account Balance	100.0%	100.0%	100.0%	100.0%	100.0%
ASA Annuities - Retiree/Beneficiary/Disabled	100.0%	100.0%	100.0%	100.0%	100.0%
Pension - Retiree/Beneficiary/Disabled	100.0%	100.0%	100.0%	100.0%	100.0%
Pension - Active and Inactive	56.8%	48.2%	54.2%	61.5%	53.5%
Total	<u>80.5%</u>	<u>76.6%</u>	<u>80.2%</u>	<u>82.4%</u>	<u>78.6%</u>
<b>Summary of Assumptions</b>					
Valuation Interest Rate	7.0%	6.8%	6.75%	6.75%	6.75%
Salary Scale	3.25% - 4.5%	3.25% - 4.5%	3.25% - 4.5%	3.25% - 4.5%	2.50% - 4.25%
Cost-of-Living Assumption	1.0%	1.0%	1.0%	1.0%	1.0%

<sup>1</sup> In determining the unfunded actuarial accrued liability and funded percentage, the assets are allocated first to member contribution balances, then to ASA Annuities, then to the retiree/beneficiary/disabled liability, and then to the active/inactive liability.

**SECTION I - EXECUTIVE SUMMARY**

**HISTORICAL SUMMARY (CONTINUED)**

**State – Summary of Valuation Results (Continued) <sup>1</sup>**

	<u>June 30, 2011</u>	<u>June 30, 2012</u>	<u>June 30, 2013</u>	<u>June 30, 2014</u>	<u>June 30, 2015</u>
<b>Actuarial Accrued Liability (AAL)</b>					
ASA Account Balance	\$ 935,007,712	\$ 916,482,921	\$ 932,034,205	\$ 950,500,203	\$ 905,724,437
ASA Annuities - Retiree/Beneficiary/Disabled	267,123,010	302,888,294	335,055,472	363,466,610	434,585,650
Pension - Retiree/Beneficiary/Disabled	1,523,139,077	1,662,371,442	1,787,550,960	1,720,167,275	1,892,516,915
Pension - Active and Inactive	2,538,861,413	2,660,671,538	2,635,640,409	2,855,695,328	3,058,855,272
Total	\$ 5,264,131,212	\$ 5,542,414,195	\$ 5,690,281,046	\$ 5,889,829,416	\$ 6,291,682,274
<b>Actuarial Value of Assets (AVA)</b>					
ASA Account Balance	\$ 935,007,712	\$ 916,482,921	\$ 932,034,205	\$ 950,500,203	\$ 905,724,437
ASA Annuities - Retiree/Beneficiary/Disabled	267,123,010	302,888,294	335,055,472	363,466,610	434,585,650
Pension - Retiree/Beneficiary/Disabled	1,523,139,077	1,662,371,442	1,787,550,960	1,720,167,275	1,892,516,915
Pension - Active and Inactive	1,433,516,270	1,259,781,511	1,360,730,908	1,686,564,962	1,586,987,445
Total	\$ 4,158,786,069	\$ 4,141,524,168	\$ 4,415,371,545	\$ 4,720,699,050	\$ 4,819,814,447
<b>Market Value of Assets (MVA)</b>					
ASA Account Balance	\$ 935,007,712	\$ 916,482,921	\$ 932,034,205	\$ 950,500,203	\$ 905,724,437
ASA Annuities - Retiree/Beneficiary/Disabled	267,123,010	302,888,294	335,055,472	363,466,610	434,585,650
Pension - Retiree/Beneficiary/Disabled	1,523,139,077	1,662,371,442	1,787,550,960	1,720,167,275	1,892,516,915
Pension - Active and Inactive	1,606,211,496	1,316,688,878	1,279,202,204	1,799,159,461	1,506,726,250
Total	\$ 4,331,481,295	\$ 4,198,431,535	\$ 4,333,842,841	\$ 4,833,293,549	\$ 4,739,553,252
<b>Unfunded Actuarial Accrued Liability: AAL - AVA</b>					
ASA Account Balance	\$ -	\$ -	\$ -	\$ -	\$ -
ASA Annuities - Retiree/Beneficiary/Disabled	-	-	-	-	-
Pension - Retiree/Beneficiary/Disabled	-	-	-	-	-
Pension - Active and Inactive	1,105,345,143	1,400,890,027	1,274,909,501	1,169,130,366	1,471,867,827
Total	\$ 1,105,345,143	\$ 1,400,890,027	\$ 1,274,909,501	\$ 1,169,130,366	\$ 1,471,867,827
<b>Funded Percentage: AVA / AAL <sup>2</sup></b>					
ASA Account Balance	100.0%	100.0%	100.0%	100.0%	100.0%
ASA Annuities - Retiree/Beneficiary/Disabled	100.0%	100.0%	100.0%	100.0%	100.0%
Pension - Retiree/Beneficiary/Disabled	100.0%	100.0%	100.0%	100.0%	100.0%
Pension - Active and Inactive	56.5%	47.3%	51.6%	59.1%	51.9%
Total	79.0%	74.7%	77.6%	80.2%	76.6%
<b>Summary of Assumptions</b>					
Valuation Interest Rate	7.0%	6.8%	6.75%	6.75%	6.75%
Salary Scale	3.25% - 4.5%	3.25% - 4.5%	3.25% - 4.5%	3.25% - 4.5%	2.50% - 4.25%
Cost-of-Living Assumption	1.0%	1.0%	1.0%	1.0%	1.0%

<sup>1</sup> As requested by INPRS, one-third (1/3) of the retired / disabled / beneficiary member liability, ASA account balances, and ASA annuities has been allocated to the State and the remaining two-thirds (2/3) to the Political Subdivisions.

<sup>2</sup> In determining the unfunded actuarial accrued liability and funded percentage, the assets are allocated first to member contribution balances, then to ASA Annuities, then to the retiree/beneficiary/disabled liability, and then to the active/inactive liability.

**SECTION I - EXECUTIVE SUMMARY**

**HISTORICAL SUMMARY (CONTINUED)**

**Political Subdivisions – Summary of Valuation Results (Continued) <sup>1</sup>**

	<u>June 30, 2011</u>	<u>June 30, 2012</u>	<u>June 30, 2013</u>	<u>June 30, 2014</u>	<u>June 30, 2015</u>
<b>Actuarial Accrued Liability (AAL)</b>					
ASA Account Balance	\$ 1,870,015,425	\$ 1,832,965,841	\$ 1,864,068,411	\$ 1,901,000,405	\$ 1,811,448,874
ASA Annuities - Retiree/Beneficiary/Disabled	534,246,019	605,776,587	670,110,943	726,933,219	869,171,299
Pension - Retiree/Beneficiary/Disabled	3,046,278,154	3,324,742,886	3,575,101,919	3,440,334,549	3,785,033,832
Pension - Active and Inactive	4,198,476,483	4,478,340,402	4,346,118,470	4,774,125,060	5,223,231,984
Total	<u>\$ 9,649,016,081</u>	<u>\$ 10,241,825,716</u>	<u>\$ 10,455,399,743</u>	<u>\$ 10,842,393,233</u>	<u>\$ 11,688,885,989</u>
<b>Actuarial Value of Assets (AVA)</b>					
ASA Account Balance	\$ 1,870,015,425	\$ 1,832,965,841	\$ 1,864,068,411	\$ 1,901,000,405	\$ 1,811,448,874
ASA Annuities - Retiree/Beneficiary/Disabled	534,246,019	605,776,587	670,110,943	726,933,219	869,171,299
Pension - Retiree/Beneficiary/Disabled	3,046,278,154	3,324,742,886	3,575,101,919	3,440,334,549	3,785,033,832
Pension - Active and Inactive	2,391,260,643	2,183,215,176	2,422,630,415	3,002,293,732	2,846,415,157
Total	<u>\$ 7,841,800,241</u>	<u>\$ 7,946,700,490</u>	<u>\$ 8,531,911,688</u>	<u>\$ 9,070,561,905</u>	<u>\$ 9,312,069,162</u>
<b>Market Value of Assets (MVA)</b>					
ASA Account Balance	\$ 1,870,015,425	\$ 1,832,965,841	\$ 1,864,068,411	\$ 1,901,000,405	\$ 1,811,448,874
ASA Annuities - Retiree/Beneficiary/Disabled	534,246,019	605,776,587	670,110,943	726,933,219	869,171,299
Pension - Retiree/Beneficiary/Disabled	3,046,278,154	3,324,742,886	3,575,101,919	3,440,334,549	3,785,033,832
Pension - Active and Inactive	2,679,335,016	2,281,836,265	2,277,477,604	3,202,725,832	2,702,458,956
Total	<u>\$ 8,129,874,614</u>	<u>\$ 8,045,321,579</u>	<u>\$ 8,386,758,877</u>	<u>\$ 9,270,994,005</u>	<u>\$ 9,168,112,961</u>
<b>Unfunded Actuarial Accrued Liability: AAL - AVA</b>					
ASA Account Balance	\$ -	\$ -	\$ -	\$ -	\$ -
ASA Annuities - Retiree/Beneficiary/Disabled	-	-	-	-	-
Pension - Retiree/Beneficiary/Disabled	-	-	-	-	-
Pension - Active and Inactive	1,807,215,840	2,295,125,226	1,923,488,055	1,771,831,328	2,376,816,827
Total	<u>\$ 1,807,215,840</u>	<u>\$ 2,295,125,226</u>	<u>\$ 1,923,488,055</u>	<u>\$ 1,771,831,328</u>	<u>\$ 2,376,816,827</u>
<b>Funded Percentage: AVA / AAL <sup>2</sup></b>					
ASA Account Balance	100.0%	100.0%	100.0%	100.0%	100.0%
ASA Annuities - Retiree/Beneficiary/Disabled	100.0%	100.0%	100.0%	100.0%	100.0%
Pension - Retiree/Beneficiary/Disabled	100.0%	100.0%	100.0%	100.0%	100.0%
Pension - Active and Inactive	57.0%	48.8%	55.7%	62.9%	54.5%
Total	<u>81.3%</u>	<u>77.6%</u>	<u>81.6%</u>	<u>83.7%</u>	<u>79.7%</u>
<b>Summary of Assumptions</b>					
Valuation Interest Rate	7.0%	6.8%	6.75%	6.75%	6.75%
Salary Scale	3.25% - 4.5%	3.25% - 4.5%	3.25% - 4.5%	3.25% - 4.5%	2.50% - 4.25%
Cost-of-Living Assumption	1.0%	1.0%	1.0%	1.0%	1.0%

<sup>1</sup> As requested by INPRS, one-third (1/3) of the retired / disabled / beneficiary member liability, ASA account balances, and ASA annuities has been allocated to the State and the remaining two-thirds (2/3) to the Political Subdivisions.

<sup>2</sup> In determining the unfunded actuarial accrued liability and funded percentage, the assets are allocated first to member contribution balances, then to ASA Annuities, then to the retiree/beneficiary/disabled liability, and then to the active/inactive liability.

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## SECTION II - FUNDING

### **FUNDING**

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SECTION II - FUNDING

**A. Development of Funded Status**

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
1. Actuarial Accrued Liability		
a. Annuity Savings Account Balances <sup>1</sup>	\$ 2,851,500,608	\$ 2,717,173,311
b. ASA Annuities	1,090,399,829	1,303,756,949
c. Retirees, Beneficiaries, and Disableds	5,160,501,824	5,677,550,747
d. Actives and Inactives	7,629,820,388	8,282,087,256
e. Total: (1)(a) + (1)(b) + (1)(c) + (1)(d)	\$ 16,732,222,649	\$ 17,980,568,263
2. Actuarial Value of Assets <sup>2</sup>		
a. Annuity Savings Account Balances	\$ 2,851,500,608	\$ 2,717,173,311
b. ASA Annuities	1,090,399,829	1,303,756,949
c. Retirees, Beneficiaries, and Disableds	5,160,501,824	5,677,550,747
d. Actives and Inactives	4,688,858,694	4,433,402,602
e. Total: (2)(a) + (2)(b) + (2)(c) + (2)(d)	\$ 13,791,260,955	\$ 14,131,883,609
3. Unfunded Actuarial Accrued Liability <sup>2</sup>		
a. Annuity Savings Account Balances: (1)(a) - (2)(a)	\$ -	\$ -
b. ASA Annuities: (1)(b) - (2)(b)	-	-
c. Retirees, Beneficiaries, and Disableds: (1)(c) - (2)(c)	-	-
d. Actives and Inactives: (1)(d) - (2)(d)	2,940,961,694	3,848,684,654
e. Total: (1)(e) - (2)(e)	\$ 2,940,961,694	\$ 3,848,684,654
4. Funded Percentage <sup>2</sup>		
a. Annuity Savings Account Balances: (2)(a) / (1)(a)	100.0%	100.0%
b. ASA Annuities: (2)(b) / (1)(b)	100.0%	100.0%
c. Retirees, Beneficiaries, and Disableds: (2)(c) / (1)(c)	100.0%	100.0%
d. Actives and Inactives: (2)(d) / (1)(d)	61.5%	53.5%
e. Total: (2)(e) / (1)(e)	82.4%	78.6%

<sup>1</sup> Includes non-vested balances of \$454,380 as of June 30, 2014 and \$1,000,980 as of June 30, 2015 for ASA-only members.

<sup>2</sup> In determining the unfunded actuarial accrued liability and funded percentage, the assets are allocated first to member contribution balances, then to ASA Annuities, then to the retiree/beneficiary/disabled liability, and then to the active/inactive liability.

SECTION II - FUNDING

**B. Unfunded Actuarial Accrued Liability Reconciliation**

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
1. Unfunded Actuarial Accrued Liability, Prior Year	\$ 3,198,397,556	\$ 2,940,961,694
2. Unfunded Actuarial Accrued Liability (Gain) / Loss		
a. Actuarial Value of Assets Experience	\$ (153,724,692)	\$ 217,685,457
b. Actuarial Accrued Liability Experience	14,276,601	279,636,484
c. Additional Liability Due to Cost-of-living Adjustments	(29,438,118) <sup>1</sup>	(31,658,781) <sup>3</sup>
d. Additional Liability Due to Changes in Actuarial Assumptions	-	488,354,517 <sup>4</sup>
e. Additional Liability Due to Changes in Plan Provisions	(42,984,699) <sup>2</sup>	-
f. Total New Amortization Bases:	\$ (211,870,908)	\$ 954,017,677
(2)(a) + (2)(b) + (2)(c) + 2(d) + (2)(e)		
g. Reduction in UAAL Due to Prior Year Contributions, Net of Interest	(45,564,954)	(46,294,717)
h. Change in Unfunded Actuarial Accrued Liability:	\$ (257,435,862)	\$ 907,722,960
(2)(f) + (2)(g)		
3. Unfunded Actuarial Accrued Liability, Current Year: (1) + (2)(h)	\$ 2,940,961,694	\$ 3,848,684,654

<sup>1</sup> Retired members were provided a 13th check by October 1, 2014, rather than a 1.0% COLA on January 1, 2015.

<sup>2</sup> Impact of 2014 House Enrolled Act No. 1075, which prohibits INPRS from entering into an agreement with a third party for ASA annuitizations prior to January 1, 2017, but specifies ASA annuitization rates of 5.75% starting September 30, 2014, and the greater of 4.5% and a market rate starting September 30, 2015.

<sup>3</sup> Retired members will be provided a 13th check by October 1, 2015, rather than a 1.0% COLA on January 1, 2016.

<sup>4</sup> Several assumptions were updated pursuant to an experience study completed in April 2015.

SECTION II - FUNDING

**C. Actuarial Accrued Liability Reconciliation**

1. June 30, 2014 Total Actuarial Accrued Liability	\$ 16,732,222,649	
2. June 30, 2014 Annuity Savings Account Balances	2,851,500,608	
3. June 30, 2014 Actuarial Accrued Liability, Excluding ASA Balances: (1) - (2)	\$ 13,880,722,041	
4. Normal Cost	\$ 273,909,865	
5. Actual Benefit Payments <sup>1</sup>	761,050,919	
6. ASA Annuitizations	196,788,238	
7. Employer Service Purchases	289,933	
8. Interest of 6.75% on (3) + (4) - (5)/2 + (6)/2 + (7)/2	936,403,574	
9. Expected June 30, 2015 Actuarial Accrued Liability, Excluding ASA Balances: (3) + (4) - (5) + (6) + (7) + (8)	\$ 14,527,062,732	
	<u>Dollar Change in</u>	<u>Percent Change in</u>
	<u>Defined Benefit Liability</u>	<u>Defined Benefit Liability</u>
10. (Gain)/Loss Components		
a. Census	\$ 279,636,484	1.9%
b. 13th Check vs. COLA <sup>2</sup>	(31,658,781)	(0.2%)
c. Assumption Changes <sup>3</sup>	488,354,517	3.4%
d. Total: (10)(a) + (10)(b) + (10)(c)	\$ 736,332,220	5.1%
11. Actual June 30, 2015 Actuarial Accrued Liability, Excluding ASA Balances	\$ 15,263,394,952	
12. June 30, 2015 Annuity Savings Account Balances	2,717,173,311	
13. June 30, 2015 Total Actuarial Accrued Liability: (11) + (12)	\$ 17,980,568,263	

<sup>1</sup> Includes net interfund transfers of employer contributed amounts, but does not include ASA lump sum payments to retired members or refunds of accumulated member contributions associated with ASA balances.

<sup>2</sup> Retired members will be provided a 13th check by October 1, 2015, rather than a 1.0% COLA on January 1, 2016.

<sup>3</sup> Several assumptions were updated pursuant to an experience study completed in April 2015.

SECTION II - FUNDING

**D. Reconciliation of Market Value of Assets**

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
1. Market Value of Assets, Prior June 30 <sup>1</sup>	\$ 12,720,601,718	\$ 14,104,287,554
2. Receipts		
a. Employer Contributions	\$ 526,089,688	\$ 538,059,283 <sup>2</sup>
b. Member Contributions	164,188,727	169,730,741
c. Investment Income and Dividends Net of Fees	1,551,796,508	42,042,300
d. Security Lending Income Net of Fees	1,597,363	1,596,323
e. Transfers In	3,444,407	4,184,330
f. Miscellaneous Income	50,869	83,014
g. Total Receipts: (2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f)	\$ 2,247,167,562	\$ 755,695,991
3. Disbursements		
a. Benefits Paid During the Year <sup>3</sup>	\$ 765,326,739	\$ 850,675,062
b. Refund of Contributions and Interest	63,030,930	62,732,492
c. Administrative and Project Expenses	27,433,396	25,506,518
d. Transfers Out	7,690,661	13,403,260
e. Miscellaneous Disbursements	-	-
f. Total Disbursements: (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e)	\$ 863,481,726	\$ 952,317,332
4. Market Value of Assets, Current June 30: (1) + (2)(g) - (3)(f) <sup>1</sup>	<b>\$ 14,104,287,554</b>	<b>\$ 13,907,666,213</b>
5. Market Value of Assets Approximate Annual Rate of Return <sup>4</sup>	12.1%	0.1%

<sup>1</sup> Includes member ASA balances.

<sup>2</sup> Includes \$289,933 of employer service purchases.

<sup>3</sup> Includes ASA lump sum distributions to retired members.

<sup>4</sup> Based on individual fund experience, including ASA balances. Net of expenses and assumes cash flows occur at mid-year.

SECTION II - FUNDING

**E. Reconciliation of Actuarial Value of Assets**

1.	Market Value of Assets, June 30, 2014																										
	a. Total Market Value of Assets, June 30, 2014	\$	14,104,287,554																								
	b. Annuity Savings Account Balances, June 30, 2014		2,851,500,608																								
	c. Market Value of Assets, Excluding ASA Balances: June 30, 2014:	\$	11,252,786,946																								
	(1)(a) - (1)(b)																										
2.	Market Value of Assets, June 30, 2015																										
	a. Total Market Value of Assets, June 30, 2015	\$	13,907,666,213																								
	b. Annuity Savings Account Balances, June 30, 2015		2,717,173,311																								
	c. Market Value of Assets, Excluding ASA Balances: June 30, 2015:	\$	11,190,492,902																								
	(2)(a) - (2)(b)																										
3.	Expected Earnings/Expenses at 6.75% on June 30, 2014 Defined Benefit Market Value of Assets																										
	a. Expected Investment Earnings at 6.75% on June 30, 2014 Market Value	\$	759,563,119																								
	b. Receipts with Expected Investment Earnings at 6.75% <sup>1</sup>		558,094,276																								
	c. Disbursements with Expected Investment Earnings at 6.75% <sup>1</sup>		789,855,991																								
	d. ASA Annuity Payments with Expected Investment Earnings at 6.75% <sup>1</sup>		203,429,841																								
4.	Expected Market Value of Assets, June 30, 2015																										
	a. Expected Market Value of Assets, Excluding ASA Balances, June 30, 2015: (1)(c) + (3)(a) + (3)(b) - (3)(c) + (3)(d)	\$	11,984,018,191																								
	b. Annuity Savings Account Balances, June 30, 2015		2,717,173,311																								
	c. Expected Total Market Value of Assets, June 30, 2015	\$	14,701,191,502																								
5.	2014-2015 Gain/(Loss): (2)(c) - (4)(a)	\$	(793,525,289)																								
6.	Smoothing of Gain/(Loss)																										
	<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 15%; border-bottom: 1px solid black;">Year</th> <th style="width: 15%; border-bottom: 1px solid black;">Gain/(Loss)</th> <th style="width: 15%; border-bottom: 1px solid black;">% Unrecognized</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>2014-2015</td> <td style="text-align: right;">\$ (793,525,289)</td> <td style="text-align: center;">75%</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">(595,143,967)</td> </tr> <tr> <td>b.</td> <td>2013-2014</td> <td style="text-align: right;">\$ 820,876,296</td> <td style="text-align: center;">50%</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">410,438,148</td> </tr> <tr> <td>c.</td> <td>2012-2013</td> <td style="text-align: right;">\$ (158,046,309)</td> <td style="text-align: center;">25%</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">(39,511,577)</td> </tr> </tbody> </table>		Year	Gain/(Loss)	% Unrecognized			a.	2014-2015	\$ (793,525,289)	75%	\$	(595,143,967)	b.	2013-2014	\$ 820,876,296	50%	\$	410,438,148	c.	2012-2013	\$ (158,046,309)	25%	\$	(39,511,577)		
	Year	Gain/(Loss)	% Unrecognized																								
a.	2014-2015	\$ (793,525,289)	75%	\$	(595,143,967)																						
b.	2013-2014	\$ 820,876,296	50%	\$	410,438,148																						
c.	2012-2013	\$ (158,046,309)	25%	\$	(39,511,577)																						
7.	Preliminary Actuarial Value of Assets, June 30, 2015: (2)(a) - (6)(a) - (6)(b) - (6)(c)	\$	14,131,883,609																								
8.	Corridor																										
	a. 120% of Market Value: 1.2 x (2)(c) + (2)(b)		16,689,199,456																								
	b. 80% of Market Value: 0.8 x (2)(c) + (2)(b)		11,126,132,970																								
9.	Actuarial Value of Assets, June 30, 2015: (7), but not greater than (8)(a) or less than (8)(b)	\$	<b>14,131,883,609</b>																								
10.	Actuarial Value of Assets as a Percent of Market Value: (9) / (2)(a)		101.6%																								
11.	Actuarial Value of Assets Approximate Annual Rate of Investment Return		4.1%																								

<sup>1</sup> Assumes cash flows occur at mid-year.

SECTION II - FUNDING

**F. Allocation of Assets**

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
1. Total Assets Available for Benefit		
a. Market Value of Assets	\$ 14,104,287,554	\$ 13,907,666,213
b. Actuarial Value of Assets	13,791,260,955	14,131,883,609
2. Annuity Savings Accounts	2,851,500,608	2,717,173,311
3. Assets for Retirees, Beneficiaries, and Disabled Members, including ASA Annuities		
a. Retirees, Beneficiaries, and Disabled	\$ 5,160,501,824	\$ 5,677,550,747
b. ASA Annuities	1,090,399,829	1,303,756,949
c. Total	\$ 6,250,901,653	\$ 6,981,307,696
4. Total Non-Retired Assets		
a. Market Value of Assets: (1)(a) - (2) - (3)(c)	\$ 5,001,885,293	\$ 4,209,185,206
b. Actuarial Value of Assets: (1)(b) - (2) - (3)(c)	\$ 4,688,858,694	\$ 4,433,402,602
5. Total Ledger Assets	\$ 5,434,574,774	\$ 5,493,915,631
a. State Amount	\$ 1,954,796,251	\$ 1,966,610,280
b. State Percent	36.0%	35.8%
c. Political Subdivisions Amount	\$ 3,479,778,523	\$ 3,527,305,351
d. Political Subdivisions Percent	64.0%	64.2%
6. State Allocation of Non-Retired Assets		
a. Market Value of Assets: (4)(a) x (5)(b)	\$ 1,799,159,461	\$ 1,506,726,250
b. Actuarial Value of Assets: (4)(b) x (5)(b)	\$ 1,686,564,962	\$ 1,586,987,445
7. Political Subdivisions Allocation of Non-Retired Assets		
a. Market Value of Assets: (4)(a) x (5)(d)	\$ 3,202,725,832	\$ 2,702,458,956
b. Actuarial Value of Assets: (4)(b) x (5)(d)	\$ 3,002,293,732	\$ 2,846,415,157

SECTION II - FUNDING

G. State – Contribution Rate

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
<b>Development of Actuarially Determined Contribution Rate:</b>		
1. Anticipated Payroll	\$ 1,758,268,220	\$ 1,698,936,078
2. Normal Cost (Beginning of Year)		
a. Amount	\$ 81,560,106	\$ 57,464,009
b. Percentage of Payroll	4.64%	3.38%
3. Unfunded Actuarial Accrued Liability (UAAL) Annual Amortizations		
a. Amount	\$ 90,674,549	\$ 114,273,153
b. Percentage of Payroll	5.16%	6.73%
4. Actuarially Determined Contribution Rate:		
a. Percentage of Payroll: (2)(b) + (3)(b)	<b>9.80%</b>	<b>10.11%</b>
b. Effective Date	July 1, 2015	July 1, 2016
<b>Approved Funding Rate:</b>	<b>11.20%</b>	<b>11.20%</b>
<b>Expected Percentage of Actuarially Determined Contribution Contributed:</b>		
6. Fiscal Year Beginning	July 1, 2015	July 1, 2016
7. Actuarially Determined Contribution Rate:	9.80%	10.11%
8. Approved Funding Rate:	11.20%	11.20%
9. Expected Percentage of Actuarially Determined Contribution Rate Contributed: (8) / (7)	114.29%	110.78%

SECTION II - FUNDING

**H. Political Subdivisions – Aggregate Contribution Rate**

	<b>June 30, 2014</b>	<b>June 30, 2015</b>
<b>Development of Aggregate Actuarially Determined Contribution:</b>		
1. Anticipated Payroll	\$ 3,321,824,076	\$ 3,265,877,310
2. Normal Cost (Beginning of Year)		
a. Amount	\$ 192,349,759	\$ 133,591,497
b. Percentage of Payroll	5.79%	4.09%
3. Unfunded Actuarial Accrued Liability (UAAL) Annual Amortizations		
a. Amount	\$ 138,655,319	\$ 185,276,132
b. Percentage of Payroll	4.17%	5.67%
4. Aggregate Actuarially Determined Contribution Rate:		
a. Percentage of Payroll: (2)(b) + (3)(b)	<b>9.96%</b>	<b>9.76%</b>
b. Effective Date	January 1, 2016	January 1, 2017
<b>Approved Funding Rate:</b>	<b>11.20%</b> <sup>1</sup>	<b>11.20%</b> <sup>2</sup>
<b>Expected Percentage of Aggregate Actuarially Determined Contribution Rate Contributed:</b>		
6. Fiscal Year Beginning	July 1, 2015	July 1, 2016
7. Aggregate Actuarially Determined Contribution Rates for:		
a. July 1 - December 31	10.55%	9.96%
b. January 1 - June 30	9.96%	9.76%
8. Approved Funding Rates for:		
a. July 1 - December 31	11.19%	11.20%
b. January 1 - June 30	11.20%	11.20%
9. Expected Percentage of Aggregate Actuarially Determined Contribution Rate Contributed: $\frac{\{(8)(a) + (8)(b)\} / 2}{\{(7)(a) + (7)(b)\} / 2}$	109.17%	113.59%

<sup>1</sup> Weighted average approved rate for all Political Subdivisions. The approved composite rate is 11.20% for the year beginning January 1, 2016, but a lower rate was approved for some Political Subdivisions that have yet to be phased into the composite rate group.

<sup>2</sup> Weighted average approved rate for all Political Subdivisions. The approved composite rate is 11.20% for the year beginning January 1, 2017, but a lower rate was approved for some Political Subdivisions that have yet to be phased into the composite rate group.

SECTION II - FUNDING

**Unfunded Actuarial Accrued Liability Amortization Schedule**

**I. State**

	Date Base Established	Reason	Remaining Unfunded	Remaining Period	Amortization Amount
1.	6/30/2008	Fresh Start	\$ 40,263,583	23	\$ 3,274,972
2.	6/30/2009	Actuarial Experience	256,243,485	24	20,471,745
3.	6/30/2010	Actuarial Experience and Changes in Actuarial Assumptions	521,452,469	25	40,977,084
4.	6/30/2011	Actuarial Experience and Changes in Actuarial Assumptions	228,880,992	26	17,714,135
5.	6/30/2012	Actuarial Experience and Changes in Actuarial Assumptions	297,384,588	27	22,694,524
6.	6/30/2013	Actuarial Experience and Changes in Plan Provisions	(105,832,266)	28	(7,972,163)
7.	6/30/2014	Actuarial Experience and Changes in Plan Provisions	(87,141,265)	29	(6,485,747)
8.	6/30/2015	Actuarial Experience and Changes in Actuarial Assumptions	320,616,241	30	23,598,603
	Total		\$ 1,471,867,827	25.9 <sup>1</sup>	\$ 114,273,153

**J. Political Subdivisions**

	Date Base Established	Reason	Remaining Unfunded	Remaining Period	Amortization Amount
1.	6/30/2006	Fresh Start	\$ 202,779,658	21	\$ 17,180,318
2.	6/30/2007	Actuarial Experience and Changes in Actuarial Assumptions	4,085,118	22	338,826
3.	6/30/2008	Actuarial Experience	42,549,051	23	3,460,869
4.	6/30/2009	Actuarial Experience	313,808,970	24	25,070,753
5.	6/30/2010	Actuarial Experience and Changes in Actuarial Assumptions	624,365,561	25	49,064,261
6.	6/30/2011	Actuarial Experience and Changes in Actuarial Assumptions	520,929,182	26	40,317,066
7.	6/30/2012	Actuarial Experience and Changes in Actuarial Assumptions	491,405,813	27	37,501,005
8.	6/30/2013	Actuarial Experience and Changes in Plan Provisions	(334,124,186)	28	(25,169,001)
9.	6/30/2014	Actuarial Experience and Changes in Plan Provisions	(122,383,776)	29	(9,108,776)
10.	6/30/2015	Actuarial Experience and Changes in Actuarial Assumptions	633,401,436	30	46,620,811
	Total		\$ 2,376,816,827	25.7 <sup>1</sup>	\$ 185,276,132

<sup>1</sup> The weighted average remaining UAAL amortization period is calculated by weighting the remaining amortization period of each base by the amortization amount of each base.

SECTION II - FUNDING

**K. History of Employer Contribution Rates**<sup>1, 2</sup>

<u>Valuation Date</u>	<u>State</u>		<u>Political Subdivisions (Aggregate)</u>		<u>Weighted Average</u>
	<u>Effective Date</u>	<u>Contribution Rate</u>	<u>Effective Date</u>	<u>Contribution Rate</u>	
June 30, 2001	July 1, 2002	5.2%	January 1, 2003	5.0%	5.1%
June 30, 2002	July 1, 2003	5.6%	January 1, 2004	6.2%	5.9%
June 30, 2003	July 1, 2004	3.8%	January 1, 2005	4.7%	4.4%
June 30, 2004	July 1, 2005	4.5%	January 1, 2006	5.3%	5.0%
June 30, 2005	July 1, 2006	5.5%	January 1, 2007	6.3%	6.0%
June 30, 2006	July 1, 2007	6.3%	January 1, 2008	6.9%	6.7%
June 30, 2007	July 1, 2008	6.3%	January 1, 2009	6.9%	6.6%
June 30, 2008	July 1, 2009	6.5%	January 1, 2010	7.1%	6.8%
June 30, 2009	July 1, 2010	7.0%	January 1, 2011	7.9%	7.6%
June 30, 2010	July 1, 2011	8.6%	January 1, 2012	8.8%	8.7%
June 30, 2011	July 1, 2012	9.7%	January 1, 2013	9.7%	9.7%
June 30, 2012	July 1, 2013	11.2%	January 1, 2014	11.0%	11.1%
June 30, 2013	July 1, 2014	11.2%	January 1, 2015	11.2%	11.2%
June 30, 2014	July 1, 2015	11.2%	January 1, 2016	11.2%	11.2%
June 30, 2015	July 1, 2016	11.2%	January 1, 2017	11.2%	11.2%

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> Prior to the June 30, 2011 valuation date, rates shown reflect application of contribution rate smoothing rules.

SECTION II - FUNDING

**L. Approximate Annual Rate of Return for Year Ending June 30, 2015 <sup>1</sup>**

	<u>Market Value of Assets</u>	<u>Actuarial Value of Assets</u>
1. Balance, beginning of year	\$ 14,104,287,554	\$ 13,791,260,955
2. Balance, end of year	13,907,666,213	14,131,883,609
3. Total increase: (2) - (1)	(196,621,341)	340,622,654
4. Contributions <sup>2</sup>	707,873,038	707,873,038
5. Benefit payments <sup>3</sup>	922,626,484	922,626,484
6. Net additions: (4) - (5)	(214,753,446)	(214,753,446)
7. Net investment increase: (3) - (6)	18,132,105	555,376,100
8. Average assets: [(1) + (2) - (7)] / 2	13,996,910,831	13,683,884,232
9. Approximate rate of return: (7) / (8) <sup>1</sup>	0.1%	4.1%

**M. Historical Investment Experience**

<u>Year Ending June 30</u>	<u>Actual Rate of Investment Return</u>		<u>Actuarial Assumed Interest Rate</u>
	<u>Market Basis <sup>4</sup></u>	<u>Actuarial Basis <sup>1</sup></u>	
2006	10.7%	7.9%	7.25%
2007	18.2%	10.4%	7.25%
2008	(7.6%)	5.3%	7.25%
2009	(20.6%)	(0.9%)	7.25%
2010	13.9%	(0.7%)	7.25%
2011	20.1%	(1.2%)	7.0%
2012	0.7%	2.3%	7.0%
2013	6.0%	8.7%	6.75%
2014	13.7%	7.7%	6.75%
2015	0.0%	4.1%	6.75%

<sup>1</sup> Based on individual fund experience, including ASA balances. Net of expenses and assuming cash flows occur at mid-year.

<sup>2</sup> Includes miscellaneous income.

<sup>3</sup> Includes refunds of accumulated member contributions, ASA lump sum distributions to retired members, and net interfund transfers.

<sup>4</sup> INPRS actual time-weighted rate of return net of fees for 2012-2015, excluding ASA balances. PERF Consolidated Defined Benefit time-weighted rate of return reported as gross of fees for 2006-2011.

SECTION II - FUNDING

**N. Interest Rate Sensitivity**

The investment return assumption (discount rate) should be based on an estimated long-term investment yield for the plan, with consideration given to the nature and mix of current and expected plan investments. Management and the Board continually monitor the investment rate of return assumption and the Board formally reviews the assumption and makes changes as appropriate. The Board last changed the assumption for the June 30, 2012 valuation from 7.0% to 6.75%.

To illustrate the importance of the investment rate of return, which is used to discount the actuarial liabilities of the Plan, the Funded Ratio and Actuarially Determined Contribution Rate (for the fiscal year beginning July 1, 2016 for State and January 1, 2017 for Political Subdivisions) are shown below and on the following page at interest rates from 5.75% to 8.00%, in 0.25% increments.

	1.00% Decrease: (5.75%)	0.75% Decrease: (6.00%)	0.50% Decrease: (6.25%)	0.25% Decrease: (6.50%)	Current Assumption: (6.75%)
<b><u>Funded Status</u></b>					
Actuarial Accrued Liability	\$ 19,915,545,714	\$ 19,396,667,095	\$ 18,902,117,577	\$ 18,430,515,906	\$ 17,980,568,263
Actuarial Value of Assets	<u>14,131,883,609</u>	<u>14,131,883,609</u>	<u>14,131,883,609</u>	<u>14,131,883,609</u>	<u>14,131,883,609</u>
Unfunded Actuarial Accrued Liability	\$ 5,783,662,105	\$ 5,264,783,486	\$ 4,770,233,968	\$ 4,298,632,297	\$ 3,848,684,654
Funded Ratio	71.0%	72.9%	74.8%	76.7%	78.6%
<b><u>Actuarially Determined Contribution Rate</u></b>					
Normal Cost Percentage	5.03%	4.70%	4.39%	4.11%	3.85%
UAAL Amortization Percentage	<u>8.14%</u>	<u>7.61%</u>	<u>7.09%</u>	<u>6.56%</u>	<u>6.03%</u>
Actuarially Determined Contribution Rate	13.17%	12.31%	11.48%	10.67%	9.88%

SECTION II - FUNDING

**N. Interest Rate Sensitivity (Continued)**

	0.25% Increase: (7.00%)	0.50% Increase: (7.25%)	0.75% Increase: (7.50%)	1.00% Increase: (7.75%)	1.25% Increase: (8.00%)
<b><u>Funded Status</u></b>					
Actuarial Accrued Liability	\$ 17,551,062,386	\$ 17,140,862,073	\$ 16,748,902,099	\$ 16,374,183,464	\$ 16,015,768,974
Actuarial Value of Assets	<u>14,131,883,609</u>	<u>14,131,883,609</u>	<u>14,131,883,609</u>	<u>14,131,883,609</u>	<u>14,131,883,609</u>
Unfunded Actuarial Accrued Liability	\$ 3,419,178,777	\$ 3,008,978,464	\$ 2,617,018,490	\$ 2,242,299,855	\$ 1,883,885,365
Funded Ratio	80.5%	82.4%	84.4%	86.3%	88.2%
<b><u>Actuarially Determined Contribution Rate</u></b>					
Normal Cost Percentage	3.61%	3.39%	3.18%	2.98%	2.80%
UAAL Amortization Percentage	<u>5.51%</u>	<u>4.98%</u>	<u>4.46%</u>	<u>3.94%</u>	<u>3.42%</u>
Actuarially Determined Contribution Rate	9.12%	8.37%	7.64%	6.92%	6.22%

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SECTION III - ACCOUNTING

**ACCOUNTING**

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SECTION III - ACCOUNTING

**PLAN FINANCIAL STATEMENTS UNDER GASB #67**

**A. Statement of Fiduciary Net Position under GASB #67 as of June 30, 2015**

1. Assets		
a. Cash	\$	4,224,465
b. Receivables		
i. Contributions Receivable	\$	4,266,381
ii. Miscellaneous Receivables		2,077,277
iii. Investments Receivable		202,561,409
iv. Foreign Exchange Contract Receivable		2,636,398,795
v. Interest and Dividends		39,007,038
vi. Due From Other Funds		1,510,386
vii. Total Receivables	\$	2,885,821,286
c. Total Investments		
i. Short-Term Investments		9,652,866
ii. Pooled Short-Term Investments		574,749,570
iii. Pooled Fixed Income		5,683,759,873
iv. Pooled Equity		3,280,535,382
v. Pooled Alternative Investments		4,380,623,794
vi. Pooled Derivatives		1,195,248
vii. Securities Lending Collateral		561,803,816
viii. Total Investments	\$	14,492,320,549
d. Net Capital Assets		5,311,906
e. Prepaid Expenses		503,243
f. Total Assets: (1)(a) + (1)(b)(vii) + (1)(c)(viii) + (1)(d) + (1)(e)	\$	17,388,181,449
2. Liabilities		
a. Accounts Payable	\$	3,491,685
b. Retirement Benefits Payable		10,581,143
c. Salaries and Benefits Payable		2,680,147
d. Investments Payable		169,226,516
e. Foreign Exchange Contracts Payable		2,646,166,001
f. Securities Lending Obligations		561,803,816
g. Securities Sold Under Agreement to Repurchase		85,401,936
h. Due To Other Funds		1,163,992
i. Total Liabilities: (2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f) + (2)(g) + (2)(h)	\$	3,480,515,236
3. Fiduciary Net Position Restricted for Pensions: (1)(f) - (2)(i)	\$	<b>13,907,666,213</b>

SECTION III - ACCOUNTING

**PLAN FINANCIAL STATEMENTS UNDER GASB #67**

**B. Statement of Changes in Fiduciary Net Position under GASB #67 for the Year Ended June 30, 2015**

1.	Fiduciary Net Position as of June 30, 2014 <sup>1</sup>	\$	14,104,287,554
2.	Additions		
	a. Contributions		
	i. Member Contributions	\$	169,730,741
	ii. Employer Contributions <sup>1</sup>		537,769,350
	iii. Employer Service Purchases		289,933
	iv. Non-Employer Contributing Entity Contributions		-
	v. Total Contributions	\$	707,790,024
	b. Investment Income/(Loss)		
	i. Net Appreciation/(Depreciation) <sup>2,3</sup>	\$	(61,556,920)
	ii. Net Interest and Dividend Income		191,186,437
	iii. Securities Lending Income		1,903,717
	iv. Other Net Investment Income		2,130,884
	v. Investment Expenses		(89,718,100)
	vi. Securities Lending Expenses		(307,395)
	vii. Total Investment Income/(Loss)	\$	43,638,623
	c. Other Additions		
	i. Member Reassignments	\$	4,184,330
	ii. Miscellaneous Receipts		83,014
	iii. Total Other Additions	\$	4,267,344
	d. Total Revenue (Additions): (2)(a)(v) + (2)(b)(vii) + (2)(c)(iii)	\$	755,695,991
3.	Deductions		
	a. Pension and Disability Benefits <sup>4</sup>	\$	850,675,062
	b. Death, Survivor, and Funeral Benefits		-
	c. Distributions of Contributions and Interest		62,732,492
	d. Member Reassignments		13,403,260
	e. Administrative and Project Expenses <sup>5</sup>		25,506,518
	f. Total Expenses (Deductions): (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e)	\$	952,317,332
4.	Net Increase (Decrease) in Fiduciary Net Position: (2)(d) - (3)(f)	\$	(196,621,341)
5.	Fiduciary Net Position as of June 30, 2015: (1) + (4) <sup>1</sup>	\$	<b>13,907,666,213</b>

<sup>1</sup> Includes member ASA balances.

<sup>2</sup> The calculation of realized gains and losses is independent of the calculation of the net change in the fair value of pension plan investments.

<sup>3</sup> Realized gains and losses on investments that had been held in more than one reporting period and sold in the current period were included as a change in the fair value reported in the prior period(s) and the current period.

<sup>4</sup> Includes ASA lump sum payments to retired members.

<sup>5</sup> Includes \$1,210,574 of contributions by INPRS for its employees.

SECTION III - ACCOUNTING

EMPLOYER FINANCIAL STATEMENTS UNDER GASB #68

**C. Collective Net Pension Liability under GASB #68 for the Year Ended June 30, 2015**

1.	Total Pension Liability		
	a. Total Pension Liability - Beginning of year		\$ 16,732,222,649
	b. Annuity Savings Account Balances - Beginning of year		<u>2,851,500,608</u>
	c. Pension Liability, Excluding ASA Balances - Beginning of year: (1)(a) - (1)(b)		\$ 13,880,722,041
	d. Service cost <sup>1</sup>		\$ 273,909,865
	e. Interest cost <sup>2</sup>		936,403,574
	f. Experience (gains)/losses		247,977,703
	g. Assumption changes		488,354,517
	h. Plan amendments		-
	i. ASA Annuitizations		196,788,238
	j. Benefit payments <sup>3</sup>		(752,895,719)
	k. Member reassignments <sup>4</sup>		(8,155,200)
	l. Employer Service Purchases		<u>289,933</u>
	m. Pension Liability, Excluding ASA Balances - End of year		\$ 15,263,394,952
	n. Annuity Savings Account Balances - End of year		<u>2,717,173,311</u>
	o. Total Pension Liability - End of year: (1)(m) + (1)(n)		\$ 17,980,568,263
2.	Plan Fiduciary Net Position		
	a. Plan Fiduciary Net Position - Beginning of year		\$ 14,104,287,554
	b. Annuity Savings Account Balances - Beginning of year		<u>2,851,500,608</u>
	c. Plan Fiduciary Net Position, Excluding ASA Balances - Beginning of year: (2)(a) - (2)(b)		\$ 11,252,786,946
	d. Employer contributions <sup>5</sup>		538,059,283
	e. Non-employer contributing entity contributions		-
	f. Investment return		
	i. Expected investment return <sup>6</sup>	\$ 847,843,404	
	ii. Investment gain/(loss)	<u>(768,402,037)</u>	
	iii. Total investment return	\$ 79,441,367	
	iv. Investment Expenses	<u>(90,025,495)</u>	
	v. Net investment return		(10,584,128)
	g. ASA Annuitizations		196,788,238
	h. Benefit payments <sup>3</sup>		(752,895,719)
	i. Member reassignments <sup>4</sup>		(8,155,200)
	j. Administrative and Project Expenses <sup>7</sup>		<u>(25,506,518)</u>
	k. Plan Fiduciary Net Position, Excluding ASA Balances - End of year		\$ 11,190,492,902
	l. Annuity Savings Account Balances - End of year		<u>2,717,173,311</u>
	m. Plan Fiduciary Net Position - End of year: (2)(k) + (2)(l)		\$ 13,907,666,213
3.	Collective Net Pension Liability		
	a. Collective Net Pension Liability: (1)(o) - (2)(l)		\$ 4,072,902,050
	b. Plan Fiduciary Net Position as a Percentage of the Collective Pension Liability : (2)(l) / (1)(o)		77.3%

<sup>1</sup> As of the beginning of the year.

<sup>2</sup> Includes interest of 6.75% on the beginning-of-year service cost.

<sup>3</sup> Does not include ASA lump sum payments to retired members or refunds of accumulated ASA balances for non-retired members.

<sup>4</sup> Includes net interfund transfers of employer contributed amounts.

<sup>5</sup> Includes \$289,933 of employer service purchases.

<sup>6</sup> 6.75%, net of investment expenses and assuming cash flows occur at mid-year.

<sup>7</sup> Includes \$1,210,574 of contributions by INPRS for its employees.

SECTION III - ACCOUNTING

**EMPLOYER FINANCIAL STATEMENTS UNDER GASB #68**

**D. Collective Deferred Inflows and Outflows of Resources under GASB #68 for the Year Ended June 30, 2015**<sup>1</sup>

Fiscal Year Established	Reason	Remaining Balance At Beginning of Year	Remaining Period <sup>2</sup>	Annual Recognition	Remaining Balance At End of Year
1. Liability experience					
a. Inflows					
2014	Experience gain	\$ 11,792,291	3.50	\$ 3,369,226	\$ 8,423,065
b. Outflows					
2015	Experience loss	\$ (247,977,703)	3.39	\$ (73,149,765)	\$ (174,827,938)
2. Assumption changes					
a. Inflows					
2014	None				
b. Outflows					
2015	Assumptions changes	\$ (488,354,517)	3.39	\$ (144,057,380)	\$ (344,297,137)
3. Investment experience <sup>3</sup>					
a. Inflows					
2014	Investment gain	\$ 510,721,597	4.00	\$ 127,680,400	\$ 383,041,197
b. Outflows					
2015	Investment loss	\$ (858,427,532)	5.00	\$ (171,685,507)	\$ (686,742,025)
4. Total deferred inflows / outflows: (1) + (2) + (3)					
a. Inflows					
	Total	<b>\$ 522,513,888</b>		<b>\$ 131,049,626</b>	<b>\$ 391,464,262</b>
b. Outflows					
	Total	<b>\$ (1,594,759,752)</b>		<b>\$ (388,892,652)</b>	<b>\$ (1,205,867,100)</b>

<sup>1</sup> The effort and cost to re-create financial statement information for 10-years was not practical. Information was prepared prospectively from June 30, 2013 for GASB #68 purposes.

<sup>2</sup> The initial amortization period for liability experience gains / losses and assumption change gains / losses is equal to the expected future working lifetime of all members, active and inactive. The initial amortization period for investment gains / losses is five years.

<sup>3</sup> Net of investment expenses.

SECTION III - ACCOUNTING

**EMPLOYER FINANCIAL STATEMENTS UNDER GASB #68**

**D. Collective Deferred Inflows and Outflows of Resources under GASB #68 for the Year Ended June 30, 2015 (Continued) <sup>1</sup>**

Amounts reported as collective deferred inflows / (outflows) of resources to be recognized in pension expense:

Year Ending June 30:		
2015	\$	(257,843,026)
2016	\$	(257,843,026)
2017	\$	(257,843,026)
2018	\$	(127,031,282)
2019	\$	(171,685,504)
2020	\$	-
Thereafter	\$	-

<sup>1</sup> The effort and cost to re-create financial statement information for 10-years was not practical. Information was prepared prospectively from June 30, 2013 for GASB #68 purposes.

SECTION III - ACCOUNTING

**EMPLOYER FINANCIAL STATEMENTS UNDER GASB #68**

**E. Collective Pension Expense under GASB #68 for the Year Ended June 30, 2015**

1. Service cost	
a. Total service cost <sup>1</sup>	\$ 273,909,865
b. Administrative and Project Expenses <sup>2</sup>	24,295,944
c. Net employer service cost: (1)(a) + (1)(b)	298,205,809
2. Interest cost <sup>3</sup>	936,403,574
3. Expected return on assets <sup>4</sup>	(847,843,404)
4. Plan amendments	-
5. Recognition of deferred (inflows) / outflows of resources related to:	
a. Liability experience (gains) / losses	69,780,539
b. Assumption changes (gains) / losses	144,057,380
c. Investment (gains) / losses	44,005,107
d. Total: (5)(a) + (5)(b) + (5)(c)	257,843,026
6. Total collective pension expense: (1)(c) + (2) + (3) + (4) + (5)(d)	\$ 644,609,005
7. Employer Service Purchases <sup>5</sup>	289,933
8. Total Pension Expense: (6) + (7)	\$ 644,898,938

<sup>1</sup> As of the beginning of the year.

<sup>2</sup> Excludes \$1,210,574 of contributions by INPRS for its employees.

<sup>3</sup> Includes interest of 6.75% on the beginning-of-year service cost.

<sup>4</sup> 6.75% net of investment expenses and assuming cash flows occur at mid-year.

<sup>5</sup> To be expensed by the employers who purchased service for members during the year.

SECTION III - ACCOUNTING

**NOTES TO THE FINANCIAL STATEMENTS UNDER GASB #67 AND #68**

**F. Selected Notes to the Financial Statements under GASB #67 and #68**

1. PERF is a cost-sharing multiple-employer plan for GASB accounting purposes.

2. Significant actuarial assumptions and other inputs used to measure the total pension liability:

- Measurement Date                      June 30, 2015
  - Valuation Date
  - Assets:                                      June 30, 2015
  - Liabilities:                                June 30, 2014 - Member census data as of June 30, 2014 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2014 and June 30, 2015. Standard actuarial roll forward techniques were then used to project the total pension liability computed as of June 30, 2014 to the June 30, 2015 measurement date.
  - Inflation                                    2.25%
  - Future Salary Increases                2.50% - 4.25%
  - Cost-of-Living Increases               1.0% compounded annually on employer funded pension, beginning January 1, 2017. Retired members were provided a 13th check by October 1, 2014, and will be provided a 13th check by October 1, 2015, which is reflected in the valuation.
  - Mortality Assumption                 RP-2014 (with MP-2014 improvement removed) Total Data Set Mortality Tables projected on a fully generational basis using the future mortality improvement scale inherent in the mortality projection included in the Social Security Administration's 2014 Trustee Report.
  - Experience Study                        The most recent comprehensive experience study was completed in April 2015 and was based on member experience between June 30, 2010 and June 30, 2014. The demographic assumptions were updated as needed for the June 30, 2015 actuarial valuation based on the results of the study.
  - Discount Rate                            The discount rate used to measure the total pension liability was 6.75% as of June, 30, 2015, and is equal to the long-term expected return on plan investments. The projection of cash flows used to determine the discount rate assumed that employer contributions would be made at the actuarially calculated rate computed in accordance with the current funding policy adopted by the Board, which requires payment of the normal cost and amortization of the unfunded actuarially accrued liability in level dollar installments over 30 years utilizing a closed period approach. Since the current funding policy was adopted, the employer contribution rate has been set by the Board at a level equal to or exceeding the actuarially calculated rate. Based on this assumption, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.
  - Discount Rate Sensitivity
  - Net Pension Liability
- |                            |                             |                            |
|----------------------------|-----------------------------|----------------------------|
| <u>1% Decrease (5.75%)</u> | <u>Current Rate (6.75%)</u> | <u>1% Increase (7.75%)</u> |
| \$        6,007,879,501    | \$        4,072,902,050     | \$        2,466,517,251    |

SECTION III - ACCOUNTING

**NOTES TO THE FINANCIAL STATEMENTS UNDER GASB #67 AND #68**

**F. Selected Notes to the Financial Statements under GASB #67 and #68 (Continued)**

3. Classes of plan members covered: <sup>1</sup>	
- Retired members, beneficiaries and disabled members receiving benefits:	79,198
- Terminated vested plan members entitled to but not yet receiving benefits:	26,681
- Terminated non-vested plan members entitled to a distribution of contributions:	43,803
- Active Plan Members:	138,660
- Total membership:	<u>288,342</u>
4. Money-weighted rate of return:	
The money-weighted rate of return equals investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. For the fiscal year ending June 30, 2015, the money-weighted return on the plan assets is 0.3%.	
5. The components of the Net Pension Liability for the total PERF plan as of June 30, 2015, are as follows:	
- Total Pension Liability	\$ 17,980,568,263
- Plan Fiduciary Net Position	<u>13,907,666,213</u>
- Net Pension Liability	\$ 4,072,902,050
- Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	77.3%

<sup>1</sup> The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.

SECTION III - ACCOUNTING

REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #67 AND #68

**G. Schedule of Changes in the Net Pension Liability and Plan Fiduciary Net Position under GASB #67 and #68 <sup>1</sup>**

Year Ending June 30:	<u>2013</u>	<u>2014</u>	<u>2015</u>
1. Total Pension Liability			
a. Total Pension Liability - Beginning of year	\$ 15,784,239,911	\$ 16,145,680,789	\$ 16,732,222,649
b. Annuity Savings Account Balances - Beginning of year	2,749,448,762	2,796,102,616	2,851,500,608
c. Defined Benefit Pension Liability - Beginning of year: (1)(a) - (1)(b)	\$ 13,034,791,149	\$ 13,349,578,173	\$ 13,880,722,041
d. Service cost <sup>2</sup>	\$ 270,973,983	\$ 258,069,653	\$ 273,909,865
e. Interest cost <sup>3</sup>	875,615,527	895,453,921	936,403,574
f. Experience (gains)/losses	(104,470,833)	(15,161,517)	247,977,703
g. Assumption changes	-	-	488,354,517
h. Plan amendments	(167,485,633)	(42,984,699)	-
i. ASA Annuity payments	107,520,485	119,094,145	196,788,238
j. Benefit payments <sup>4</sup>	(662,283,487)	(680,203,104)	(752,895,719)
k. Member reassignments <sup>5</sup>	(5,083,018)	(3,124,531)	(8,155,200)
l. Employer Service Purchases	-	-	289,933
m. Defined Benefit Pension Liability - End of year	\$ 13,349,578,173	\$ 13,880,722,041	\$ 15,263,394,952
n. Annuity Savings Account Balances - End of year	2,796,102,616	2,851,500,608	2,717,173,311
o. Total Pension Liability - End of year: (1)(l) + (1)(m)	\$ 16,145,680,789	\$ 16,732,222,649	\$ 17,980,568,263
2. Plan Fiduciary Net Position			
a. Plan Fiduciary Net Position - Beginning of year	\$ 12,243,753,114	\$ 12,720,601,718	\$ 14,104,287,554
b. Annuity Savings Account Balances - Beginning of year	2,749,448,762	2,796,102,616	2,851,500,608
c. Plan Fiduciary Net Position, Excluding ASA Balances - Beginning of year: (2)(a) - (2)(b)	\$ 9,494,304,352	\$ 9,924,499,102	\$ 11,252,786,946
d. Employer contributions <sup>6</sup>	455,658,474	526,089,688	538,059,283
e. Non-employer contributing entity contributions	-	-	-
f. Net Investment return	563,563,572	1,393,865,042	(10,584,128)
g. ASA Annuity payments	107,520,485	119,094,145	196,788,238
h. Benefit payments <sup>4</sup>	(662,283,487)	(680,203,104)	(752,895,719)
i. Member reassignments <sup>5</sup>	(5,083,018)	(3,124,531)	(8,155,200)
j. Administrative and Project Expenses <sup>7</sup>	(29,181,276)	(27,433,396)	(25,506,518)
k. Plan Fiduciary Net Position, Excluding ASA Balances - End of year	\$ 9,924,499,102	\$ 11,252,786,946	\$ 11,190,492,902
l. Annuity Savings Account Balances - End of year	2,796,102,616	2,851,500,608	2,717,173,311
m. Plan Fiduciary Net Position - End of year: (2)(k) + (2)(l)	\$ 12,720,601,718	\$ 14,104,287,554	\$ 13,907,666,213

<sup>1</sup> The effort and cost to re-create financial statement information for 10-years was not practical. Information was prepared prospectively from June 30, 2012 for GASB #67 purposes and prospectively from June 30, 2013 for GASB #68 purposes

<sup>2</sup> As of the beginning of the year.

<sup>3</sup> Includes interest of 6.75% on the beginning-of-year service cost.

<sup>4</sup> Does not include ASA lump sum payments to retired members or refunds of accumulated ASA balances for non-retired members.

<sup>5</sup> Includes net interfund transfers of employer contributed amounts.

<sup>6</sup> For 2015, includes \$289,933 of employer service purchases.

<sup>7</sup> For 2015, includes \$1,210,574 of contributions by INPRS for its employees.

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #67 AND #68**

**H. Schedule of Net Pension Liability and Related Ratios under GASB #67 and #68**<sup>1</sup>

1. Year Ending	2. Total Pension Liability	3. Plan Fiduciary Net Position	4. Net Pension Liability (2) - (3)	5. Fiduciary Net Position as a Percentage of Total Pension Liability (3) / (2)	6. Actual Covered Employee Payroll <sup>2</sup>	7. Net Pension Liability as a Percentage of Covered Payroll (4) / (6)
6/30/2013	\$ 16,145,680,789	\$ 12,720,601,718	\$ 3,425,079,071	78.8%	\$ 4,700,000,000	72.9%
6/30/2014	\$ 16,732,222,649	\$ 14,104,287,554	\$ 2,627,935,095	84.3%	\$ 4,896,635,240	53.7%
6/30/2015	\$ 17,980,568,263	\$ 13,907,666,213	\$ 4,072,902,050	77.3%	\$ 4,804,145,033	84.8%

<sup>1</sup> The effort and cost to re-create financial statement information for 10-years was not practical. Information was prepared prospectively from June 30, 2012 for GASB #67 purposes and prospectively from June 30, 2013 for GASB #68 purposes.

<sup>2</sup> Pensionable pay as provided by INPRS. Gross member compensation, which may include components of compensation that are not included in pensionable pay, was not made available to PwC.

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #67 AND #68**

**I. Schedule of Contributions under GASB #67 and #68**<sup>1, 2</sup>

1.  Year Ending	2.  Actuarially Determined Contribution <sup>3</sup>	3.  Actual Employer Contributions <sup>4</sup>	4.  Contribution Excess / (Deficiency) (Deficiency)  (3) - (2)	5.  Actual Covered Employee Payroll <sup>5</sup>	6.  Contributions as a Percentage of Covered Payroll  (3) / (5)
6/30/2013	\$ 464,046,667	\$ 455,658,474	\$ (8,388,193)	\$ 4,700,000,000	9.7%
6/30/2014	\$ 528,562,365	\$ 519,575,670	\$ (8,986,695)	\$ 4,896,635,240	10.6%
6/30/2015	\$ 517,716,612	\$ 536,202,332	\$ 18,485,720	\$ 4,804,145,033	11.2%

<sup>1</sup> The effort and cost to re-create financial statement information for 10-years was not practical. Information was prepared prospectively from June 30, 2012 for GASB #67 purposes and prospectively from June 30, 2013 for GASB #68 purposes.

<sup>2</sup> The information shown relates to the employers participating in the Fund. There are no non-employer contributing entities.

<sup>3</sup> For each employer, the actuarially determined contribution amount is based on the actual payroll during the fiscal year multiplied by the actuarially determined contribution rate(s) effective for the fiscal year. For the State the actuarially determined contribution rate for the fiscal year is based on the prior year June 30 valuation. For each Political Subdivision the actuarially determined contribution rate for the fiscal year is an average of the actuarially determined contribution rates from the prior two June 30 valuations.

<sup>4</sup> For June 30, 2015, excludes \$289,933 of employer service purchases, \$224,578 of member paid service purchases, \$45,353 of employer withdrawal payments, and \$1,297,087 of contributions paid toward the defined benefit unfunded actuarial accrued liability for members that participate in the ASA only portion of the plan.

<sup>5</sup> Pensionable pay for defined benefit members as provided by INPRS. Gross member compensation, which may include components of compensation that are not included in pensionable pay, was not made available to PwC.

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #67 AND #68**

**J. Schedule of Money-Weighted Returns under GASB #67 and #68**<sup>1</sup>

1. Year Ending	2. Money-Weighted Rate of Return
6/30/2013	5.8%
6/30/2014	12.3%
6/30/2015	0.3%

<sup>1</sup> The effort and cost to re-create financial statement information for 10 years was not practical. Information was prepared prospectively from June 30, 2012 for GASB #67 purposes and prospectively from June 30, 2013 for GASB #68 purposes.

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SECTION IV - CENSUS DATA

**CENSUS DATA**

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SECTION IV - CENSUS DATA

**A. Reconciliation of Participant Data** <sup>1,2</sup>

	Inactive Non-Vested		Inactive Deceased <sup>3</sup>	Disabled	Retired	Beneficiary	ASA Only		Total
	Actives	ASA Balance					Inactive Vested	Active and Inactive	
Total as of June 30, 2013	137,497	50,912	23,872	226	4,907	61,960	9,083	70	288,527
New Entrants	15,073	-	-	-	-	-	-	302	15,375
Rehires	1,981	(1,116)	(864)	-	-	(1)	-	-	-
Non-Vested Terminations	(7,445)	7,501	(56)	-	-	-	-	-	-
Vested Terminations	(3,101)	(576)	3,684	-	(3)	(4)	-	-	-
Retirements	(3,307)	(31)	(1,569)	-	(13)	4,920	-	-	-
Disabilities	(171)	(31)	(111)	-	619	(306)	-	-	-
Death with Beneficiary	(53)	(2)	(24)	(12)	(96)	(532)	719	-	-
Death - Entitled to ASA and/or Pension Benefits	(65)	(14)	(7)	97	(5)	(5)	(1)	-	-
Death without Beneficiary	(52)	-	(15)	(4)	(115)	(1,241)	(491)	-	(1,918)
Refunds	(2,037)	(12,880)	(266)	(48)	-	-	(1)	(1)	(15,233)
TRF Transfer / Millie Morgan	(4)	-	(4)	-	-	-	-	-	(8)
Data Adjustments	(147)	(20)	1,856	(25)	(2)	(224)	30	-	1,468
Total as of June 30, 2014	138,169	43,743	26,496	234	5,292	64,567	9,339	371	288,211
<u>Data Adjustments for Activity During Fiscal Year 2014</u>									
Withdrawals <sup>4</sup>	(9)	-	9	-	-	-	-	-	-
New Units / Enlargements <sup>5</sup>	136	-	-	-	-	-	-	-	136
PERF to 1977 Fund Transfer <sup>6</sup>	(7)	2	-	-	-	-	-	-	(5)
Adjusted Total as of June 30, 2014	138,289	43,745	26,505	234	5,292	64,567	9,339	371	288,342

<sup>1</sup> The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.

<sup>2</sup> Headcounts reflect the record counts used in the valuation, which may include multiple records for individual members such as members with multiple periods of service.

<sup>3</sup> Inactive deceased counts include 176 members with vested benefits.

<sup>4</sup> Employers with active members as of June 30, 2014 that completed a full withdrawal during fiscal year 2015 include the Flanner House Elementary (ER 1741). Additionally, employers with active members as of June 30, 2014 that completed a partial withdrawal during fiscal year 2015 include Metropolitan School District of Martinsville (ER 1369).

<sup>5</sup> New units with filled positions during fiscal year 2015 include Town of Clayton (ER 1889), Town of Holton (ER 1890), Jasper County Airport Authority (ER 1891), South Central Regional Airport Authority (ER 1892), Inspire Academy (ER 1893), and City of Brazil (ER 1894). Enlargements with filled positions during fiscal year 2015 include Richmond Community Schools (ER 613), Lafayette School Corporation (ER 847), New Prairie United School Corporation (ER 917), Alexandria Community School Corporation (ER 1002), Tippecanoe School Corporation (ER 1013), Eastbrook Community School Corporation (ER 1061), Sheridan Community Schools (ER 1199), Liberty Perry Schools Corporation (ER 1254), Rensselaer Central School Corporation (ER 1316), Danville Community School Corporation (ER 1327), Danville-Center Township Public Library (ER 1670), Washington Township-Hamilton County (ER 1716), Hamilton Heights School Corporation (ER 1815), Rochester Community School Corporation (ER 653), Town of New Whiteland (ER 1056), Tri-Central Community Schools (ER 1248), Pike County (ER 1264), North Miami Community Schools (ER 1391), City of Martinsville (ER 1409), Decatur County (ER 1471), City of Fishers (ER 1520), Town of West Baden Springs (ER 1585), Tippecanoe Township-Kosciusko County (ER 1739), and Town of Winfield (ER 1786).

<sup>6</sup> Employers that transferred coverage for certain members from PERF to 1977 Fund during fiscal year 2015 include Walkerton Police Department (ER 892) and Pittsboro Police Department (ER 1553).

SECTION IV - CENSUS DATA

**B. Census Information as of June 30, 2014**<sup>1,2</sup>

	<u>Male</u>	<u>Female</u>	<u>Total</u>
1. Active <sup>3</sup>			
a. Number			
i. State	18,070	23,243	41,313
ii. Political Subdivisions	36,068	60,772	96,840
iii. ASA Only	165	206	371
iv. Total	<u>54,303</u>	<u>84,221</u>	<u>138,524</u>
b. Average Age	47.3	47.9	47.7
c. Average Years of Service	11.9	11.2	11.5
d. Anticipated Payroll of Actives <sup>4</sup>			
i. State	\$ 813,846,393	\$ 885,089,685	\$ 1,698,936,078
ii. Political Subdivisions	1,481,021,750	1,780,518,688	3,261,540,438
iii. Total	<u>\$ 2,294,868,143</u>	<u>\$ 2,665,608,373</u>	<u>\$ 4,960,476,516</u>
2. Inactive - Vested			
a. Number	8,199	18,482	26,681
b. Average Age	53.5	53.6	53.6
c. Average Years of Service	13.5	11.4	12.1
3. Inactive - Non-Vested			
a. Number			43,803
4. Retiree/Beneficiary/Disabled			
a. Number	25,657	53,541	79,198
b. Average Age	71.0	73.3	72.6
c. Annual Benefits Payable <sup>5</sup>			
i. Pension	216,285,814	335,273,334	551,559,148
ii. ASA Annuities	46,848,343	65,359,737	112,208,080
iii. Total	<u>\$ 263,134,157</u>	<u>\$ 400,633,071</u>	<u>\$ 663,767,228</u>

<sup>1</sup> The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.

<sup>2</sup> Headcounts reflect the record counts used in the valuation, which may include duplicate records for members such as members with multiple periods of service.

<sup>3</sup> Does not include statistics on the 136 active members who joined after June 30, 2014.

<sup>4</sup> Figures shown are the anticipated pay for the one-year period following the valuation date.

<sup>5</sup> Figures shown reflect cost-of-living increases effective January 1 following the date of the census data, if provided, but do not reflect one-time 13th check amounts provided.

SECTION IV - CENSUS DATA

**C. Schedule of Active Member Valuation Data**<sup>1,2,3</sup>

1. Valuation Date	2. Active Members	3. Anticipated Payroll (\$ in Thousands) <sup>4</sup>	4. Average Pay <sup>4</sup> (3) / (2)	5. Annual Percent Change
6/30/2006	140,563	4,322,180	30,749	0.7%
6/30/2007	138,863	4,385,676	31,583	2.7%
6/30/2008	140,146	4,600,354	32,825	3.9%
6/30/2009	147,792	4,931,423	33,367	1.7%
6/30/2010	149,877	4,896,013	32,667	(2.1%)
6/30/2011	147,933	4,818,774	32,574	(0.3%)
6/30/2012	145,519	4,904,052	33,700	3.5%
6/30/2013	137,937	4,766,910	34,559	2.5%
6/30/2014 <sup>4</sup>	137,567	5,080,092	36,928	6.9%
6/30/2015 <sup>5</sup>	138,660	4,964,813	35,806	(3.0%)

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> The valuation results beginning as of June 30, 2014 were calculated using census data as of the prior year end, adjusted for certain activity during the current fiscal year.

<sup>3</sup> Headcounts reflect the record counts used in the valuation, which may include duplicate records for members such as members with multiple periods of service.

<sup>4</sup> Figures shown are the anticipated pay for the one-year period following the valuation date.

SECTION IV - CENSUS DATA

**D. Schedule of Retirees, Beneficiaries, and Disabled Members** <sup>1,2,3</sup>  
(\$ in Thousands)

1.	2. Added		3. Removed		4. End of Year <sup>4</sup>		5.	6.	7.	8.	9.
Valuation Date	Number	Annual Allowances (\$ in Thousands) <sup>5,6</sup>	Number	Annual Allowances (\$ in Thousands) <sup>5,6</sup>	Number	Annual Allowances (\$ in Thousands) <sup>5,6</sup>	Number	Annual Allowances (\$ in Thousands) <sup>5,6</sup>	% Increase in Annual Allowances <sup>5,6</sup>	Average Annual Allowances <sup>5,6</sup>	
6/30/2006	3,403	\$ 29,572	2,241	\$ 14,440	58,283	\$ 377,611			6.6%	\$ 6,479	
6/30/2007	4,633	42,653	2,584	15,229	60,332	412,745			9.3%	6,841	
6/30/2008	5,376	43,915	3,284	18,022	62,424	436,749			5.8%	6,996	
6/30/2009	6,047	55,726	3,372	19,103	65,099	477,553			9.3%	7,336	
6/30/2010	4,827	39,214	2,760	19,022	67,166	498,199			4.3%	7,417	
6/30/2011	5,402	56,185	2,188	11,698	70,380	539,747			8.3%	7,669	
6/30/2012	4,751	49,766	2,139	12,540	72,992	576,678			6.8%	7,901	
6/30/2013	5,231	55,523	2,273	13,898	75,950	617,977			7.2%	8,137	
6/30/2014	-	-	-	-	75,950	617,977			0.0%	8,137	
6/30/2015	5,489	60,538	2,241	14,107	79,198	663,767			7.4%	8,381	

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> The valuation results beginning as of June 30, 2014 were calculated using census data as of the prior year end, adjusted for certain activity during the current fiscal year.

<sup>3</sup> Headcounts reflect the record counts used in the valuation, which may include duplicate records for members such as members with multiple periods of service.

<sup>4</sup> End of year annual allowances are not equal to the prior end of year annual allowances plus additions and less removals because of reductions for beneficiary benefits, data changes, and cost-of-living increases.

<sup>5</sup> Annual allowances include pension and ASA annuity benefits.

<sup>6</sup> Annual allowances reflect cost-of-living increases effective January 1 following the date of the census data, if provided, but do not reflect one-time 13th check amounts or new ASA annuitizations after the date of the census data.

SECTION IV - CENSUS DATA

**E. Distribution of Active Members by Age and Service** <sup>1,2,3</sup>

Attained Age	Distribution of Active Members by Age and Service as of June 30, 2014 <sup>1,2</sup>								
	Under 10 years	10 to 14 years	15 to 19 years	20 to 24 years	25 to 29 years	30 to 34 years	35 to 39 years	Over 40 years	Total
<25	3,650		1						3,651
25-29	9,947	24		1					9,972
30-34	10,590	1,035	34						11,659
35-39	8,672	2,657	862	24	2				12,217
40-44	9,106	2,860	2,253	741	42	4			15,006
45-49	8,725	3,217	2,477	1,907	927	64	5	4	17,326
50-54	8,416	4,078	3,465	2,279	2,328	1,071	149	5	21,791
55-59	7,118	3,677	3,745	2,736	2,383	1,632	1,136	73	22,500
60-64	5,068	2,606	2,550	2,115	1,786	964	1,017	392	16,498
65-69	2,140	1,020	772	620	582	325	254	218	5,931
70&Up	871	416	335	131	96	45	40	39	1,973
Total	74,303	21,590	16,494	10,554	8,146	4,105	2,601	731	138,524

<sup>1</sup> The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.

<sup>2</sup> Headcounts reflect the record counts used in the valuation, which may include duplicate records for members such as members with multiple periods of service.

<sup>3</sup> Does not include statistics on the 136 active members who joined after June 30, 2014.

SECTION IV - CENSUS DATA

**F. Distribution of Inactive Vested Members by Age and Service** <sup>1,2</sup>

<b>Attained Age</b>	<b>Distribution of Inactive Vested Members by Age and Vesting Service as of June 30, 2014</b> <sup>1,2</sup>						
	Under 10 years	10 to 14 years	15 to 19 years	20 to 24 years	25 to 29 years	Over 30 years	Total
<25		3					3
25-29	1	36					37
30-34	1	328	9				338
35-39		1,251	228	1			1,480
40-44		1,550	987	210	5		2,752
45-49	2	2,000	952	652	150	39	3,795
50-54	2	2,561	1,317	657	374	111	5,022
55-59	1	2,817	1,643	787	400	260	5,908
60-64		2,741	1,057	583	274	297	4,952
65-69		940	330	239	153	164	1,826
70&Up	1	286	91	57	42	91	568
Total	8	14,513	6,614	3,186	1,398	962	26,681

<sup>1</sup> The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.

<sup>2</sup> Headcounts reflect the record counts used in the valuation, which may include duplicate records for members such as members with multiple periods of service.

SECTION IV - CENSUS DATA

**G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired <sup>1,2</sup>**

Attained Age	Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired as of June 30, 2014 <sup>1,2</sup>						
	Under 10 years	10 to 14 years	15 to 19 years	20 to 24 years	25 to 29 years	Over 30 years	Total
<40	30	1					31
40-44	75	9	2				86
45-49	153	35	11	4			203
50-54	608	97	42	21			768
55-59	3,618	210	119	72	7		4,026
60-64	9,416	784	198	107	17	4	10,526
65-69	14,438	1,999	722	142	23	14	17,338
70-74	9,579	3,665	1,380	481	49	23	15,177
75-79	3,109	4,707	2,871	915	264	43	11,909
80-84	709	1,349	3,970	2,014	533	187	8,762
85-89	197	399	967	2,778	1,295	423	6,059
90&Up	44	99	241	561	1,822	1,546	4,313
Total	41,976	13,354	10,523	7,095	4,010	2,240	79,198

<sup>1</sup> The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.

<sup>2</sup> Headcounts reflect the record counts used in the valuation, which may include duplicate records for members such as members with multiple periods of service.

SECTION V - CENSUS DATA

**H. Schedule of Benefit Recipients by Type of Benefit Option <sup>1</sup>**

Number of Benefit Recipients by Benefit Option as of June 30, 2014

Amount of Monthly Benefit	Five Year Guaranteed Beneficiary Benefit (Certain & Life) <sup>2</sup>	Benefit with No Guarantee (Life Annuity)	Joint with Full Survivor Benefits (Option 30)	Joint with Two- Thirds Survivor Benefits (Option 40)	Joint with One- Half Survivor Benefits (Option 50)	Integration with Social Security (Level Income)	Benefit with No Guarantee (Lump Sum)	Survivors	Disabled	Total
\$ 1 - 500	11,841	7,898	6,286	670	1,606	306	0	6,120	3,321	38,048
501 - 1,000	6,565	7,008	3,972	864	1,780	181	1	2,331	1,458	24,160
1,001 - 1,500	2,193	3,084	2,079	512	994	64	0	612	395	9,933
1,501 - 2,000	811	1,367	840	301	380	57	0	181	89	4,026
2,001 - 3,000	461	831	527	199	307	55	0	80	27	2,487
over 3,000	80	205	101	65	67	9	0	15	2	544
Total	21,951	20,393	13,805	2,611	5,134	672	1	9,339	5,292	79,198

**I. Schedule of Average Benefit Payments as of June 30, 2014 <sup>1,3</sup>**

	Years of Credited Service							Total
	0-9	10-14	15-19	20-24	25-29	30+		
Average Monthly Defined Benefit	\$ 149	\$ 293	\$ 378	\$ 525	\$ 732	\$ 1,182	\$ 583	
Average Monthly ASA Annuity	\$ 43	\$ 116	\$ 129	\$ 187	\$ 255	\$ 443	\$ 211	
Average Final Average Salary	\$ 23,480	\$ 23,252	\$ 25,678	\$ 27,754	\$ 30,842	\$ 37,941	\$ 28,714	
Number of Benefit Recipients	2,775	14,087	20,210	16,141	11,503	14,482	79,198	

<sup>1</sup> The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015. Monthly benefits do not reflect 13th check payments made in October 2014 and October 2015. No cost-of-living increases were approved for January 1, 2015 or January 1, 2016.

<sup>2</sup> The number of benefit recipients for the Certain and Life option also includes recipients who elected the Five Year Guaranteed Beneficiary Benefit with ASA Cash Refund.

<sup>3</sup> For some members average salary at retirement and years of credited service was not available. The average salary for each group excludes these members. Retired members with credited service information that is missing are counted in the "10-14" group.

SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**ACTUARIAL ASSUMPTIONS AND METHODS**

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SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**A. Actuarial Assumptions**

The assumptions used in the valuation were selected and approved by the INPRS Board of Trustees. The demographic assumptions are reviewed at least every five years through a study of actual experience. The last study was completed in April 2015. In this way, the actuary provides guidance to the Board in selecting the assumptions. The actuary and other economic and investment professionals also provide advice to the Board for selecting the economic assumptions. In our opinion, the assumptions are reasonable for purposes of this valuation.

Inflation 2.25% per year

Interest Rate / Investment Return

Funding 6.75% (net of administrative and investment expenses)  
Accounting 6.75% (net of investment expenses)

Future Salary Increases Based on 2010-2014 experience. Illustrative rates shown below:

<u>Age</u>	<u>Inflation</u>	<u>Productivity, Merit, and Promotion</u>	<u>Total Individual Salary growth</u>
<31	2.25%	2.00%	4.25%
31-45	2.25%	1.50%	3.75%
46-55	2.25%	1.00%	3.25%
56-60	2.25%	0.50%	2.75%
>= 61	2.25%	0.25%	2.50%

Cost of Living Increases 1.0% per year in retirement beginning January 1, 2017. 13th checks were provided to members in pay status in lieu of a permanent cost-of-living increase in fiscal 2015 and 2016.

Interest on Member ASA Balances 2.25% per year

Mortality (Healthy and Disabled) RP-2014 (with MP-2014 improvement removed) Total Data Set Mortality Tables projected on a fully generational basis using the future mortality improvement scale inherent in the mortality projection included in the Social Security Administration's 2014 Trustee Report.

SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**A. Actuarial Assumptions (Continued)**

Retirement Based on PERF experience 2010-2014. Rates shown below:

Age	Service						
	10-14	15-25	26	27	28	29	30+
50-54	-	4%	4%	4%	4%	4%	4%
55	-	5%	5%	5%	5%	5%	14%
56	-	5%	5%	5%	5%	14%	10%
57	-	5%	5%	5%	14%	10%	10%
58	-	5%	5%	14%	10%	10%	10%
59	-	5%	14%	10%	10%	10%	10%
60	-	12%	12%	12%	12%	12%	12%
61	-	16%	16%	16%	16%	16%	16%
62	-	22%	22%	22%	22%	22%	22%
63	-	19%	19%	19%	19%	19%	19%
64	-	24%	24%	24%	24%	24%	24%
65-74	30%	30%	30%	30%	30%	30%	30%
75	100%	100%	100%	100%	100%	100%	100%

Benefit Commencement Timing

Actives Members If eligible for a reduced early retirement benefit upon termination from employment, 33% commence immediately and 67% defer to earliest unreduced retirement age.

If eligible for an unreduced retirement benefit upon termination from employment, 100% commence immediately.

Terminated Vested Members 100% defer to earliest unreduced retirement age. If currently eligible for an unreduced retirement benefit, 100% commence immediately.

SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**A. Actuarial Assumptions (Continued)**

Termination

Based on 2010-2014 experience. Rates are dependent on the member's employer (State vs Political Subdivision), annual earnings, years of service, age, and gender.

Earnings < \$20,000

Age	State		Political Subdivision		
	Male	Female	Age	Male	Female
20-24	32%	34%	20-24	31%	36%
25-29	32%	33%	25-29	31%	34%
30-34	32%	30%	30-34	26%	25%
35-39	29%	30%	35-39	22%	18%
40-44	29%	24%	40-44	21%	15%
45-49	26%	24%	45-49	18%	12%
50-54	25%	22%	50-54	14%	11%
55-59	22%	20%	55-59	14%	11%
60+	22%	20%	60+	14%	11%

State (Male)

Earnings >= \$20,000

Age	Service										
	0	1	2	3	4	5	6	7	8	9	10+
20-24	23%	23%	23%	20%	20%	17%	17%	12%	12%	7%	7%
25-29	23%	23%	23%	19%	17%	17%	17%	12%	12%	7%	7%
30-34	22%	22%	19%	18%	16%	13%	13%	12%	7%	7%	7%
35-39	17%	17%	17%	17%	16%	10%	10%	9%	7%	6%	6%
40-44	17%	17%	14%	12%	12%	10%	9%	9%	7%	5%	5%
45-49	14%	14%	14%	10%	10%	10%	9%	7%	4%	4%	4%
50-54	14%	14%	9%	9%	9%	9%	9%	7%	4%	4%	4%
55-59	13%	13%	7%	7%	7%	7%	7%	7%	4%	4%	4%
60+	13%	13%	7%	7%	7%	7%	7%	7%	4%	4%	4%

**SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS**

**A. Actuarial Assumptions (Continued)**

Termination (continued)

State (Female)		Service										
Earnings >= \$20,000		0	1	2	3	4	5	6	7	8	9	10+
Age												
20-24		23%	23%	23%	23%	17%	17%	13%	12%	11%	8%	8%
25-29		23%	23%	22%	21%	17%	17%	13%	12%	11%	8%	8%
30-34		21%	21%	21%	17%	15%	14%	12%	12%	11%	8%	8%
35-39		19%	19%	16%	16%	12%	12%	12%	12%	9%	8%	7%
40-44		18%	18%	16%	13%	12%	12%	9%	9%	8%	8%	6%
45-49		16%	16%	16%	13%	10%	10%	9%	9%	8%	8%	6%
50-54		16%	16%	15%	12%	10%	9%	9%	9%	6%	6%	6%
55-59		16%	16%	11%	11%	10%	9%	9%	9%	6%	6%	6%
60+		16%	16%	11%	11%	10%	9%	9%	9%	6%	6%	6%

Political Subdivisions (Male)		Service										
Earnings >= \$20,000		0	1	2	3	4	5	6	7	8	9	10+
Age												
20-24		18%	18%	18%	18%	14%	12%	11%	11%	7%	7%	5%
25-29		18%	18%	18%	16%	14%	12%	11%	11%	7%	7%	5%
30-34		16%	16%	16%	15%	13%	11%	11%	11%	7%	7%	5%
35-39		15%	15%	12%	12%	12%	10%	9%	9%	7%	7%	5%
40-44		13%	13%	11%	11%	10%	10%	9%	9%	7%	7%	4%
45-49		11%	11%	11%	11%	9%	7%	7%	7%	7%	7%	4%
50-54		11%	11%	9%	9%	9%	7%	7%	6%	6%	4%	4%
55-59		11%	11%	7%	7%	7%	7%	7%	5%	5%	4%	4%
60+		8%	8%	7%	7%	7%	7%	7%	5%	5%	4%	4%

Political Subdivisions (Female)		Service										
Earnings >= \$20,000		0	1	2	3	4	5	6	7	8	9	10+
Age												
20-24		22%	22%	19%	16%	14%	14%	11%	11%	9%	7%	7%
25-29		21%	21%	18%	16%	14%	14%	11%	11%	9%	7%	7%
30-34		16%	16%	16%	14%	14%	14%	11%	11%	9%	7%	7%
35-39		14%	14%	14%	12%	12%	12%	9%	9%	9%	7%	6%
40-44		13%	13%	12%	11%	10%	8%	8%	8%	8%	7%	4%
45-49		12%	12%	12%	10%	8%	8%	8%	7%	6%	6%	4%
50-54		11%	11%	10%	8%	8%	6%	6%	6%	6%	5%	4%
55-59		11%	11%	8%	8%	8%	6%	6%	6%	6%	4%	4%
60+		11%	11%	8%	8%	8%	6%	6%	6%	6%	4%	4%

SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**A. Actuarial Assumptions (Continued)**

Disability Based on 2010 - 2014 experience. Illustrative rates shown below:

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.0067%	0.0050%
30	0.0208%	0.0158%
40	0.0646%	0.0496%
50	0.2005%	0.1556%
60	0.5815%	0.3751%
70	0.1000%	0.1000%
80	0.0000%	0.0000%

Decrement Timing Decrements are assumed to occur at the beginning of the year.

Spouse/Beneficiary 75% of male members and 60% of female members are assumed to be married and or to have a dependent beneficiary. Male members are assumed to be three (3) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

ASA Withdrawal

Prior to January 1, 2017:

- 40% of active members who decrement while vested are assumed to withdraw their ASA balance immediately upon decrement.
- 40% of vested inactive members are assumed to withdraw their ASA balance immediately on the valuation date.
- 100% of active members who decrement prior to vesting are assumed to withdraw their ASA balance immediately upon decrement.
- 100% of non-vested inactive members are assumed to withdraw their ASA balance immediately on the valuation date.

Beginning January 1, 2017:

- 100% of active members are assumed to withdraw their ASA balance immediately upon decrement.
- 100% of inactive members are assumed to withdraw their ASA balance immediately.

ASA Annuitization

Prior to January 1, 2017:

- 60% of active members who decrement while vested are assumed to annuitize their ASA balance at their assumed retirement age.
- 60% of vested inactive members are assumed to annuitize their ASA balance at their assumed retirement age.

## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### **A. Actuarial Assumptions (Continued)**

#### Data Assumptions

Actives and inactive with no date of birth are assumed to be the average age of the member population with their respective status. Additionally, payroll for new hires is annualized.

Retirees and disabled members that are not married and do not have a retirement option listed are assumed to elect a 5-year certain and life annuity. Retirees and disabled members that are married and do not have a retirement option listed are assumed to be receiving a 100% joint and survivor annuity. Beneficiaries that do not have a retirement option listed are assumed to receive monthly payments for life. Spouse gender is assumed to be the opposite gender of the member.

Actives and inactive with a date of death who have not received a distribution of their ASA or commenced a pension annuity are included in the valuation as follows (provided by INPRS):

- For non-vested members, the ASA Balance is included in the valuation.
- For vested members, the ASA Balance is included in the valuation if one or more of the following is true:
  - Date of death is more than 3 years before the valuation date
  - Age of the member is greater than or equal to 65 with less than 10 years of creditable service
  - Age of the member is less than or equal to 65 with less than 15 years of creditable service
- If none of the items listed above are met, the ASA Balance and estimated pension annuity are included in the valuation.

#### Changes in Assumptions

The **inflation assumption** changed from 3.0% to 2.25% per annum.

The **future salary increase assumption** changed from an age-based table ranging from 3.25% to 4.5% to an age-based table ranging from 2.50% to 4.25%.

The **mortality assumption** changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) Total Data Set Mortality Tables projected on a fully generational basis using the future mortality improvement scale inherent in the mortality projection included in the Social Security Administration's 2014 Trustee Report.

The **retirement assumption** was updated based on recent experience. Additionally, for actives who are eligible for early retirement (reduced benefit), 33% are assumed to commence benefits immediate and 67% are assumed to commence benefits at unreduced retirement eligibility. If eligible for an unreduced retirement benefit upon termination from employment, 100% commence immediately.

The **termination assumption** was updated based on recent experience. For members earning less than \$20,000, the tables were updated from a select and ultimate table to just an ultimate table as there is little correlation with service. For members earning more than \$20,000, the tables were updated from using a 5-year select period to a 10-year select period to correspond with the vesting schedule.

The **disability assumption** was updated based on recent experience.

The **ASA Annuitization** assumption was updated from 50% of members assumed to annuitize their ASA balance to 60% of members assumed to annuitize their ASA balance prior the January 1, 2017.

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## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### **B. Actuarial Methods**

The actuarial methods used in this valuation were selected and approved by the Board. In general, the methods provide orderly funding of all benefits being accrued, as well as unfunded past-service benefit liabilities, over a period of thirty years. However, the smoothing methods employed in determining the Actuarial Value of Assets may accelerate or lengthen the effective funding period, depending on whether gains or losses are experienced. In our opinion, the actuarial methods are reasonable for the purposes of this valuation.

1. Actuarial Cost Method

The actuarial cost method is Entry Age Normal - Level Percent of Payroll.

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payments each year. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactive). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Member census data as of June 30, 2014 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2014 and June 30, 2015. Standard actuarial roll forward techniques were then used to project the liabilities computed as of June 30, 2014 to the June 30, 2015 measurement date.

2. Asset Valuation Method

Actuarial Value of Assets is equal to a four-year smoothing of gains and losses on the Market Value of Assets subject to a 20% corridor.

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## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### **B. Actuarial Methods (Continued)**

3. Method for Allocation of Actuarial Accrued Liability and Normal Cost

The Actuarial Accrued Liability ("AAL") for members with multiple current and/or historical employers is allocated pro rata to each respective employer based on the service the member accrued at each employer. In the event service at each employer is not included in the data, the AAL is allocated evenly amongst all respective employers.

The Normal Cost for members with multiple current employers is allocated to each respective employer based on the salary the member earned at each employer. In the event salary at each employer is not included in the data, the Normal Cost is allocated evenly amongst all respective current employers.

4. Anticipated Payroll

The combined State and Political Subdivision Anticipated Payroll for the fiscal year beginning July 1, 2015 is equal to the actual payroll during the year ending June 30, 2015 (excluding payroll for employers that completed a full withdrawal, partial withdrawal, or transferred coverage to 1977 Fund), increased with one year of salary scale, plus the current payroll as of June 30, 2015 for members employed at new participating political subdivisions and new covered members employed at political subdivisions that enlarged their employee coverage. The Anticipated Payroll does not include amounts for members who have reached the age at which retirement is assumed to occur immediately.

5. Employer Contribution Rates

Based on the assumptions and methods previously described, an actuarially determined contribution rate is computed for each employer. The Board considers this information, but has ultimate authority in setting the employer contribution rates, including any process used to migrate the employers toward a single Composite Rate.

6. Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

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SECTION VI - SUMMARY OF PLAN PROVISIONS

**SUMMARY OF PLAN PROVISIONS**

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SECTION VI - SUMMARY OF PLAN PROVISIONS

**Summary of Plan Provisions**

PERF Hybrid Plan

The benefit provisions for PERF are set forth in IC 5-10.2 and 5-10.3. A summary of those defined pension benefit provisions is presented below:

Participation                      All full time employees of the State of Indiana and all full time employees of Political Subdivisions which have adopted the plan become members of PERF upon date of hire.

Eligibility for Defined Pension Benefits

- a. Normal Retirement      Earliest of:
  - Age 65 with 10 or more years of vesting service
  - Age 60 with 15 or more years of vesting service
  - Age 55 with sum of age and vesting service equal to 85 or more
  
- b. Early Retirement        Age 50 with 15 or more years of vesting service
  
- c. Late Retirement         Subject to continued employment after normal retirement
  
- d. Disability Retirement    5 or more years of vesting service and qualified for Social Security disability benefits or federal Civil Service disability benefits
  
- e. Termination             10 or more years of vesting service and no longer active (i.e. vested inactive)
  
- f. Pre-Retirement Death   15 or more years of vesting service if death occurs in service. If death occurs after separating from service, age 50 with 15 or more years of vesting service

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SECTION VI - SUMMARY OF PLAN PROVISIONS

**Summary of Plan Provisions (Continued)**

PERF Hybrid Plan (Continued)

Amount of Benefits

- a. Normal Retirement      The normal retirement benefit is a pension payable for life with 60 months guaranteed and is equal to 1.1% of average monthly earnings<sup>1</sup> multiplied by years of creditable service earned.
  
- b. Early Retirement      The early retirement benefit is the accrued retirement benefit determined as of the early retirement date and payable commencing at the normal retirement date. A member may elect to have the benefit commence prior to normal retirement provided the benefit is reduced by 1/10% for each of the first 60 months and by 5/12% for each of the next 120 months that the benefit commencement date precedes the normal retirement date.
  
- c. Late Retirement      The late retirement benefit is calculated in the same manner as the normal retirement benefit. Creditable service and earnings earned after normal retirement is included in the computation.
  
- d. Disability Retirement      The disability retirement benefit is the accrued retirement benefit determined as of the disability date and payable commencing the month following disability date without reduction for early commencement.
  
- e. Termination      The termination benefit is the accrued retirement benefit determined as of the termination date and payable commencing at age 65. If the member has 15 or more years of creditable service, then the member may elect to receive a reduced early retirement benefit prior to age 65.
  
- f. Pre-Retirement Death      The spouse or dependent beneficiary is entitled to receive the monthly life benefit under the assumption that the member retired on the later of age 50 or the date before the date of death and elected the joint and full survivor option.

<sup>1</sup> Average monthly earnings is the monthly average of earnings during 20 quarters (in groups of 4 consecutive contribution quarters) preceding retirement that produce the highest such average. Earnings include basic salary, the member's 3% mandatory contribution paid by the employer, the member's salary reduction agreement under Section 125, 430(b), or 457 of the Internal Revenue Code, and up to \$2,000 of additional compensation received from the employer in anticipation of the member's termination or retirement.

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SECTION VI - SUMMARY OF PLAN PROVISIONS

**Summary of Plan Provisions (Continued)**

PERF Hybrid Plan (Continued)

Member Contributions

Each member is required to contribute to an Annuity Savings Account at the rate of 3% of pay (unless the employer has opted to make the contribution for the employee). These contributions are kept on deposit and credited with interest based on the investment elections of each member until such time as they are withdrawn or annuitized by the member.

The Annuity Savings Account benefit is in addition to the annuity benefits provided by employer contributions.

Optional Forms of Payment

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| a. 5-Year Guaranteed Beneficiary Benefit (Option 10)   | Member will receive a monthly benefit for the rest of their life. If the member dies before receiving benefits for 5 years, the beneficiary will receive that monthly benefit for the remainder of those 5 years or a lump sum distribution equal to the present value of those payments. After 5 years, there are no payments available to the beneficiary. |
| b. Benefit with No Guarantee (Option 20)               | Member will receive a monthly benefit for life, but there are no monthly payments to anyone after death. However, the balance of the Annuity Savings Account will be distributed to the beneficiary or estate if it is larger than the payments previously made to the member.   |
| c. Joint with Full Survivor Benefits (Option 30)       | Member will be paid a monthly benefit for life. After death, the same monthly benefit will be paid to the beneficiary for their lifetime.  |
| d. Joint with Two-Thirds Survivor Benefits (Option 40) | Member will be paid a monthly benefit for life. After death, two-thirds (2/3) of the benefit will be paid to the beneficiary for their lifetime.   |
| e. Joint with One-Half Survivor Benefits (Option 50)   | Member will be paid a monthly benefit for life. After death, one-half (1/2) of the benefit will be paid to the beneficiary for their lifetime.   |

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## SECTION VI - SUMMARY OF PLAN PROVISIONS

### **Summary of Plan Provisions (Continued)**

#### PERF Hybrid Plan (Continued)

##### Optional Forms of Payment (Continued)

- f. **Integration with Social Security (Option 61)** A member who retires between ages 50 and 62 may integrate the PERF monthly pension benefit with the member's estimated Social Security benefits. This does not affect the amount of the benefit received from the Social Security Administration.

Before age 62, the member's benefits will equal the sum of the member's Social Security estimate, multiplied by actuarial factors, and the member's early retirement benefit. This will result in the member receiving a larger monthly benefit payment before age 62. After age 62, the member's benefit will equal the difference between the member's Social Security estimate, multiplied by actuarial factors, and the member's pre-62 monthly pension benefit. Depending upon the member's estimated Social Security disbursement, benefit payments may be greatly reduced or terminated at age 62.

- g. **5-Year Guaranteed Beneficiary Benefit with ASA Cash Refund (Option 71)** In order to select this option, the member must choose to combine at least a portion of their ASA with their lifetime monthly pension benefit. If selected, the member will receive a monthly benefit for the rest of their life. If the member dies before receiving payments for 5 years, the beneficiary will receive the pension portion of their monthly benefit for the remainder of those 5 years or a lump sum equal to the present value of those remaining payments. Also, upon death (whether death occurs before or after receiving 5 years of benefits), the beneficiary may receive any remaining balance of the Annuity Savings Account.

##### Annuity Savings Account ("ASA") Payment Forms

- a. **Leave ASA Invested with PERF** Members may choose to leave their ASA invested with PERF. According to IRS regulations, the member must begin distribution at age 70 1/2. Until the member elects to receive funds, they will remain invested according to member direction.
- b. **Increase Lifetime Pension Benefit** If vested in an employer-funded defined benefit, members may annuitize their ASA balance to increase their monthly retirement benefit. Members may choose from the same annuity payments options available on the employer-funded benefit.

SECTION VI - SUMMARY OF PLAN PROVISIONS

**Summary of Plan Provisions (Continued)**

PERF Hybrid Plan (Continued)

Annuity Savings Account ("ASA") Payment Forms (continued)

- c. Withdraw Entire ASA     The member withdraws their entire ASA by means of either a direct rollover, complete withdrawal, or partial rollover to a qualified plan for the Taxable Portion of their ASA and, if it applicable, one of these choices for the 1986 Tax Basis Portion.
  
- d. Withdraw 1986 Tax Basis Portion of ASA and Combine Taxable Portion with Pension Benefit     The member withdraws the non-taxable (1986 Tax Basis) portion of their ASA in the form of a direct rollover, a complete distribution, or a partial rollover to a qualified plan, and then receives the balance of the account as a part of their monthly payment.

Cost-of-Living Adjustments     The employer-funded monthly pension benefits for members in pay status are increased periodically to preserve purchasing power that is diminished due to inflation. Such increases are not guaranteed by Statute and have historically been provided on an "ad hoc" basis.

A "13th check" was paid to each member in pay status during September 2014. The amount of the 13th check varied based on the years of creditable service the member had earned prior to retirement.

Changes in Provisions     2014 House Enrolled Act No. 1075 added paragraphs 2.5 and 2.6 to IC 5-10.5-4, which prohibits INPRS from entering into an agreement with a third party provider to provide annuities for members who wish to annuitize their ASA balance prior to January 1, 2017, and defines interest rate which must be used for converting ASA balances to annuities in the interim. It is anticipated that an agreement with a third party provider will be entered into effective January 1, 2017.

It is our understanding that there were no additional changes that impacted pension benefits during the previous fiscal year.



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SECTION VI - SUMMARY OF PLAN PROVISIONS

**Summary of Plan Provisions (Continued)**

ASA-Only Plan (continued)

Optional Forms of Payment (continued)

- c. Monthly Annuity      Members may annuitize their ASA balance with INPRS if the following eligibility criteria are met:
  - (i) Retirement      The member is at least age 62, has at least 5 years of service, and the ASA balance is at least \$15,000.
  - (ii) Disability      The member is eligible for Social Security disability benefits and the ASA balance is at least \$15,000.
  - (iii) Death      The member's surviving spouse/beneficiary is at least age 62 and the ASA balance is at least \$15,000.

Available annuity payment options are as shown in the PERF Hybrin Plan provisions. It is anticipated that beginning January 1, 2017, ASA annuitization will be accomodated through a third part annuity provider.

Changes in Provisions      It is our understanding that there were no changes that impacted pension benefits during the previous fiscal year.

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SECTION VII - DEFINITIONS OF TECHNICAL TERMS

**Definitions of Technical Terms**

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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### Definitions of Technical Terms

Actuarial Accrued Liability (AAL)	That portion, as determined by a particular Actuarial Cost Method, of the Present Value of Future Benefits (PVFB) and expenses which is not provided for by future Normal Costs. Generally, the portion of the PVFB attributable to past service.
Actuarial Assumptions	Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided pension benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.
Actuarial Cost Method	A mathematical procedure for allocating the Present Value of Future Benefits to service periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.
Actuarial Gain/(Loss)	The difference between actual Unfunded Actuarial Accrued Liability and anticipated Unfunded Actuarial Accrued Liability resulting from differences between actual and expected plan experience between two valuation dates.
Actuarial Present Value	The single amount that is equal to a payment or series of payments in the future. It is determined by discounting future payments using predetermined Actuarial Assumptions for interest and by probabilities of payment.
Actuarial Valuation	The determination, as of an Actuarial Valuation Date, of the Present Value of Future Benefits, Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values.
Actuarial Valuation Date	The date as of which an Actuarial Valuation is performed.
Actuarially Determined Contribution	The precise actuarial contribution rate (expressed as a percentage of covered payroll) or amount determined in accordance with a Funding Policy, which generally reflects the Normal Cost and amortization of any Unfunded Actuarial Accrued Liability.
Actuarially Equivalent	Having the same Actuarial Present Value, based on a set of Actuarial Assumptions.

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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### **Definitions of Technical Terms (Continued)**

Amortization	The payment of a present value financial obligation on an installment basis over a future period.
Creditable Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Funding Policy	A set of principles, often including a prescribed Actuarial Cost Method, Actuarial Assumptions, and/or Unfunded Actuarial Accrued Liability Amortization Method, that guide the calculation of the Actuarially Determined Contribution and management decisions regarding funding.
Level Dollar Amortization	Amortization where the installments are equal dollar amounts during each period.
Level Percent Amortization	Amortization where the installments are an equal percent of employee payroll during each period.
Normal Cost (NC)	That portion of the Present Value of Future Benefits which is allocated to the year following the Actuarial Valuation Date by the Actuarial Cost Method. The normal cost is specific to the cost method used.
Plan Assets	Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer(s) or plan administrator, for the payment of benefits in accordance with the terms of the plan.
Plan Members	The individuals covered by the terms of a pension plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.

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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### Definitions of Technical Terms (Continued)

Present Value of Future Benefits (PVFB)

Projected benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members upon retirement) as a result of their service through the valuation date and their expected future service. The actuarial present value of projected future benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment (taking into account mortality, turnover, probability of participating in plan retirement, etc.). Alternatively, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay the projected benefits when due.

Unfunded Actuarial Accrued Liability (UAAL)

The difference between the Actuarial Accrued Liability and Plan Assets as of a particular date. Plan assets may be market value or a smoothed value.

Unfunded Actuarial Accrued Liability Amortization Method

A predetermined process by which any Unfunded Actuarial Accrued Liability will be amortized for calculating the Actuarially Determined Contribution.